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EDUCATIONAL PLANNING AND DEVELOPMENT IN KOREA: AN ASSESSMENT OF THE GOAL/TARGETS AND THEIR UNDERLYING ASSUMPTIONS

BY

© SUN-YO KIM

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

IN

INTERNATIONAL/INTERCULTURAL EDUCATION

DEPARTMENT OF EDUCATIONAL FOUNDATIONS

EDMONTON, ALBERTA

FALL 1990

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DEGREE: DOCTOR OF PHILOSOPHY

YEAR THIS DEGREE GRANTED: 1990

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To Dr. Ji Woong Cheong

who opened my eyes
to the academic world

ABSTRACT

The general purpose of this study was to examine the widely held belief that education was the *corner-stone* or the *prime-mover* in development in Korea. This study focused on educational planning and the actual performance of the educational system during the Park regime from 1961 to 1979. This study went through the following logical steps.

As a first step, this study tried to identify the goal/targets and their underlying assumptions of educational planning with special focus on student enrollment projection. The educational planners in Korea set the goal/targets for quantitative expansion and qualitative improvement of educational conditions. Their underlying assumptions were to equalize the educational opportunity and to match manpower demand and supply for socio-economic development.

In relation to the goal/targets and the underlying assumptions, the study proceeded to examine how the Korean educational system actually performed during the period under study. The chronic demand for higher education had resulted in over-achievement in quantity at the cost of qualitative improvement. It was also found that there were various types of disparities of educational opportunities, particularly in higher education, and a mismatch between demand and supply of manpower.

Finally, this study examined why the planned goal/targets and their underlying assumptions were not realized as educational planners had expected. In explaining the limitations of educational planning, the study employed a structural approach that the educational system was structurally interconnected with the wider society. It was particularly important to note that there was a corresponding relationship between the educational system and the socio-economic structure and its executive arm, the political system.

Based on the major findings above, it was obvious that one could not accept the prevailing view that education was the single most important factor in the achievement of national development in Korea. This does not necessarily mean that education did not and cannot contribute to national development. Education, no doubt, could help the process of development by restructuring the existing school system, as well as the class structure of the wider society itself.

ACKNOWLEDGEMENTS

I wish to acknowledge my indebtedness to all those who assisted me in preparation of this dissertation.

First, I would to express my most sincere gratitude to my supervisor, Dr. M. K. Bacchus, for his many thoughtful suggestions, guidance, and understanding with patience throughout all phases of my study. Thanks are extended to Prof. D. R. Pugh, Dr. M. Assheton-Smith, Dr. R. J. Carney, and Dr. E. A. Holdaway for their constructive criticism and encouragement. A special acknowledgement is made to Dr. R. F. Lawson, University of Calgary, for consenting to serve as external examiner.

Deep appreciation and gratitude are extended to Dr. R. S. Pannu and Prof. J. R. Young for their insightful instruction. I am deeply grateful to my friends, Dr. B. Rapple, Dr. R. Cheng, Mrs. L. Holychuk, Mr. H. Hoekstra, and Mrs. G. Ferris for their assistance in completing this study. My special indebtedness is extended to Mr. and Mrs. Steven Pearson and their family for providing me "a home away from home" in Canada.

True thanks to Miss Min-Shin Song for her help in collecting data, and also to Sr. Mary Ann and Mr. D. Fraser for their proof-reading and commenting on the manuscript under the high pressure of time. Appreciation is as well due to Mr.

R. McDonald for typing and reformatting the final copy of the dissertation.

Finally, but not least, I wish to express my deepest appreciation to my parents, brothers, and sister and other relatives for their unfailing support and encouragement during my study abroad. Heartfelt thanks also to my wife, Jung-Sook who has not only shared great pains but also proved to be a tower of strength during the most trying periods. A final note of gratitude is to my lovely son, Doo-Soon, and my daughter, Doo-Iee, for their endurance and patience for the long time until the accomplishment of this study. All glory to them!

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CHAPTER I

INTRODUCTION

This introductory chapter includes the following areas: (1) nature of the study, and (2) the background of the study.

Nature of the Study

The nature of the study begins with (1) background, (2) the statement of the research problem, (3) purpose of the research, (4) the value of the research, and (5) the organization of the research.

Background

Paralleling the increased awareness of the importance of education in the modernization of society, there has been a growing interest in the process of formal educational planning as a vehicle for aiding the overall national development in Korea. In the last few years, however, a number of problems have surfaced within the educational systems in developing countries and these have affected their educational planning process. Among these are the accusation that educational planning in these countries

(1) has failed or has been unable to formulate the *right* educational policies successful implementation strategies, or
(2) alternatively has overstepped its domain or responsibility.

Levin (1981: 185), for example, maintains that educational planning is suffering from an *identity crisis*, and both Weiler (1980: 9) and Windham (1982: 159) have suggested that it has lost confidence and prestige. Because of this, educators often refer to "the crisis in education and educational planning" for development in many Third World countries.

Education Seen as a Development Instrument in Korean Development

Like many other developing countries, education in Korea[1] has been officially perceived as an effective instrument of national development. The political leadership has played a major role in setting directions and goals of development and have identified three major tasks to which national efforts were to be directed. These include national security, economic development, and political stability (Lee, Chong-Jae, 1980: 4).

In order to achieve these goals, the Korean government has attempted to use educational planning as a major strategy to relate education to national development plans as well as to solve internal problems of education (Jin-Eun Kim, 1973). In educational planning the major goals that were emphasized in the country were widening educational opportunity through expansion of education, education for the inculcation of a sense of national identity, and development of technical manpower (Lee, Chong-Jae nd: 2). This has resulted in educational planners being acutely concerned with the amount and quality of trained manpower which the nation produces, especially for its economic development.

---

[1] For convenience the Republic of Korea is simply referred to as Korea, although that term correctly applies to the entire Korean Peninsula, that is, North and South Korea combined. Unless there is any clear indication of North Korea, Korea in this study will refer to South Korea.

As McGinn et al. pointed out, "all empirical research done on South Korea has . . . been in the human capital theory tradition" (1980: 176). This tradition comprises two types of empirical research; studies relating to earnings/function and rate of return approach on investment in education (McGinn et al.: 176-77). These efforts have given different estimates of the magnitude of education's contribution to national development, but they are consistent with the view that an important proportion of economic growth after 1960 is attributable to growth in education.

By using the Harbison and Meyers's approach, the Korean Chamber of Commerce (1973) conducted a study on the correlation between education and economic growth covering the period 1962-1971. This study revealed that the correlation between the composite index of human resource development and developed by Harbison and Meyers, and per capita GNP was higher (r= .95) than that which was reported for most other countries. However, the correlation between the two variables does not necessarily explain the cause-effect relationship.

J. E. Jayasuriya, for example, in his study Education in Korea: A Third World Success Story (1980), declared that the major reason for the country's successful economic performance lay in the work ethic of the Korean people and the role which education had played in preparing people for the effective use of this resource. A similar argument may be found in the following statement of a UNESCO report which noted that

> the remarkable and rapid economic growth that has occurred in Korea over the last decade has been based to a large degree on human resources, and education has assisted in the production of a literate and industrious people (1974: 11).

Recently, in his Ph.D. dissertation at the University of Michigan, Dae-Sung Song reviewed the related literature and identified nine factors which have made an important contribution to the rate of economic growth in Korea. These nine factors are: (1)the strong intervention of government for national development, (2) cheap labour, (3) export-led development, (4) education, (5) foreign assistance, (6) the Confucian Legacy, (7) the experience of Japanese colonialism, (8) severe competition with North Korea, and (9) cultural legacy. Among these he concluded that "*education was one of the most important variables for national development of South Korea . . .*" (emphasis added, 1984: 76). Song summarized the relationship between education and national development in Korea in the following statement:

> [E]ducation can affect the development of knowledge and technology of people, social mobility, socialization, and social distribution . . . . Many economists argue that it is the "human resources" of a nation, not its capital nor its material resources, that ultimately determine the character and pace of its economic and social development (Song: 72-73).

Problems Pertaining to the Contribution of Education to Development in Korea

In spite of this general optimism about education as a vehicle for national development, there have already been certain limitations or problems in educational strategies and reform efforts used to bring about certain expected outcomes. While several researchers have touched upon the role of education in the development process, there are only a few pioneering studies available which deal directly with these limitations. These will be briefly reviewed here.

With the support of the Korean government and the U.S. Agency for International Development (USAID), a Florida State University team conducted a study entitled System Analysis for Educational Change: The Republic of Korea (Morgan and Chadwick, 1971). The approach adopted in this study was focused on the analysis of the existing state of the Korean educational system and attempted to discover those areas where discrepancies existed between the intention, objectives or goals of the system and its current performance. Some of the major findings were as follows:

> (1) The educational goals that characterize the Korean elementary and middle schools appear to be restricted to the conventional academic domain.
>
> (2) The systems are characterized by rote memorization of the classic academic subjects mainly for the preparation of the national competitive examination.
>
> (3) The existing curriculum is not as relevant to preparing Korean children to live and prosper as adults as it could and should be.
>
> (4) The Korean education system cannot, in its present form, achieve these important objectives through simple expansion or minor alteration of the existing system. (pp. 3-4)

One of the eight volumes, Education and Development in Korea (1980) by Noel McGinn et al., undertook a search for elements underlying the remarkable growth which has been overlooked by the existing literature. Its main findings suggested that, in spite of the great emphasis and prestige traditionally accorded to education in Korean society, it did not facilitate, to any appreciable extent, the development of the human resources necessary for economic growth . Further, the authors argued that the dominant pedagogic approach impedes the development of creativity, innovation, and entrepreneurship which are essential attributes of the modern individual.

Similarly, Chong-Jae Lee (1980) analyzed the major educational policies in terms of the following four key concepts: equality in educational opportunities, relevance of education, effectiveness of investment in education, and pursuance of humanism. He found that there was some disparity *between the desired goals and reality (1980: 7-14). While* most of the problems identified were similar to those experienced in other developing countries, Chong-Jae Lee further argued that "the practice of development education has been shaped more by the contextual factors" in that country (nd: 10). Therefore, it is important to examine some of these *contextual factors* which exist outside the educational sector such as political, socio-economic, and historical and cultural variables.

Statement of the Research Problem

Comparative and international educators have already been skeptical about the optimism of education as a prime mover in national development as an instrument of development. Until recently, however, Korean education has been regarded as a deviant case because, as Levin notes, we are often too quick to accept the *declared intent* (1976: 29) rather than examining the outcomes. Although a few researchers have attempted to analyze the limitations of the contribution which education has made to national development, none has dealt adequately with the results of the actual performance of an educational system. In fact it may be said that Korea is just passing through the Romantic Period as far as educational planning is concerned. Therefore, it is an appropriate time to reconsider the whole context of education and national development in that country.

In this regard it is important to conduct systematic and evaluative studies to examine the role of education in national development. It is necessary to set a concrete research context to avoid drawing gloomy or, as has been the practice, rosy pictures of Korean education and national development issues. In this general research context, it seems most appropriate to direct attention to the educational planning and the educational system's performance during the Park regime from 1961 to 1979. This context is especially important in Korea. As in the case of most other developing nations, the Korean Government had the strong conviction that the underdeveloped state of the nation can be overcome through a directed strategy of state planning. In particular, compared to other recent regimes, the Park government gave first priority to education in order to bring about national development in Korea.

Purpose of the Research

The general purpose of the study was therefore to examine critically the widely held belief that education has played a crucial role or has been a corner-stone (or *prime mover*) in national development in Korea during the Park regime. This study focussed on Korea's educational plans and the actual outcomes of the educational system during the study period. Specifically, this study had these objectives:

First, to identify major characteristics of national development as projected in the plans which the Korean government produced. In the process, special focus was directed to the goal/targets which were to be reached and the underlying assumptions of these goal/targets as reflected in the educational plans.

Second, to examine whether there have been any discrepancies between specific goal/targets, the underlying assumptions in the educational plans on the one hand, and the actual outcomes or the performance of the educational system on the other.

Third, to explore the structural relationship between the socio-economic and the political factors that might have contributed to the discrepancies between educational plans and the actual outcomes of the Korean educational system.

Value of the Research

Korea is a particularly good choice for this type of research. During the last two decades, the country has achieved one of the highest rates of economic growth and has been devoted to a concept of national planning possibly more than any other developing country in the world.[2] There have been numerous studies which have assumed that education has played a positive role an agent in the socio-economic development of the country. However, these studies have tended to exaggerate or, at least, overemphasize the contribution of Korean education to national development. This point became clear when we consider the social structural constraints to development which developing countries like Korea face.

The UNESCO International Institute for Educational Planning has an excellent collection of materials in this field, but most of them deal with more global efforts. Indeed, a brief survey of the literature currently available suggests that apart from government bulletins and commission reports, no single comprehensive study of Korean education of both plans and consequences has been undertaken in the past two decades.

In spite of the importance of the research, this study also had limitations. First, most of the data used in this study were not collected through any directly or purposely designed survey, but were selected from the basic statistics of government and private studies. Therefore, the data were already aggregated in some form, and the unit of aggregation may be inappropriate for a specific purpose. Such was the case, particularly, with the date on sex. Further, in explaining the social structure (Chapter VI), this study mainly focused on socio-economic and political factors and could not cover fully the legacy of cultural and historical factors of Korea due to the time constraints of the research.

---

[2] Between 1965 and 1979, Korea achieved 9.6 percent annual growth rates of GNP. The GNP per capita was $87 U.S. in 1962 and rose to $1,662 U.S. in 1979.

It was hoped that this study would provide for those involved in Third World education and the development field in general an increased awareness of the limitations of educational plans or reforms geared at national development, even in a economically buoyant country like Korea.

Organization of the Research

This study is organized into seven chapters:

Chapter I introduces the nature of the study and the background of the study.

Chapter II presents a review of related literature that deals with the concept of development, the role of education in that process, issues in educational planning in the Third World, evaluation of educational planning for national development, and the limits of educational planning for national development.

Chapter III describes the research framework and methodology.

Chapter IV examines the educational planning and development during the Park regime from 1961 to 1979, and identifies the goal/targets and the underlying assumptions behind these plans.

Chapter V deals with the actual performance of the Korean educational system. This will be examined through an analysis of policies and programs in the official documents and secondary sources. The results will be compared with the goal/targets and the underlying assumptions of the educational plans.

Chapter VI explores the factors that account for the discrepancies between educational plans and the outcomes of the actual educational performance.

Chapter VII summarizes the findings of the investigation and develops conclusions based on the findings. It is followed by the lists of reference materials and an appendix.

Background of the Study

The Nation in General

Korea is located in the heart of Far East Asia. The Korean peninsula extends southward from eastern Manchuria and Siberia to within 70 miles of Kyushu, Japan's major southern island. The geographic location of the country has always been a major factor in its history. Surrounded by the major powers of Asia and the Pacific--each vitally interested in controlling the strategically located country-- Korea has many times become a battle-ground in a struggle for power. The total area is 220,840 square kilometers, of which a major portion is mountainous, with only 20 percent being flat land. At present, the land is divided into two parts--North and South Korea (the Republic of Korea). The latter's effective administrative area is 98,992 square kilometers or about 45 percent of the peninsula. It has about the same area as Iceland or Portugal. In 1986, the total population of South Korea stood at approximately 43,284,000, a density of 427 per square kilometer.

Despite its small size, Korea has a long history. According to a popular legend, Korea was founded in 2333 B.C., but recorded Korean history begins with the period known as the Three Kingdoms, 57 B.C. to 668 A.D. During this period the country was divided into three native kingdoms: the northern section occupied by the Kokuryo, the southern by Silla, and southwestern by Paekche. After unification by Silla, the country developed into three successive dynasties: the unified Silla (668-935), Koryo (935-1392), and Yi (1392-1910). After the rule of the Yi dynasty, Korea was under Japanese rule until the end of World War II.

Throughout the centuries, Korea has remained, in a comparative (cross-national) sense, a very homogeneous society and culture with one language, one ethnic group, and a large Confucian-dominated value system. Isolated by the mountains in the north and by seas to the east, south and west, the times become a battle-ground in a struggle for power. The total area is 220,840 square kilometers, of which a major portion is mountainous, with only 20 percent being flat land. At present, the land is divided into two parts--North and South Korea (the Republic of Korea). The latter's effective administrative area is 98,992 square kilometers or about 45 percent of the peninsula. It has about the same area as Iceland or Portugal. In 1986, the total population of South Korea stood at approximately 43,284,000, a density of 427 per square kilometer.

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Koreans have been able to modify the cultural heritage and ideas they acquired from their neighbors, the Chinese and Japanese, and mold their own peculiar culture and economy. Through royal patronage, Buddhism spread rapidly throughout the three kingdoms and reached its peak as the national religion during the Koryo Dynasty. The Yi dynasty adopted Confucianism as the official doctrine of the government. Christianity was introduced around the end of the eighteenth century, and the years from to 1884-1908 witnessed a large influx of foreign missionaries.

Historically, Korean society has gone through the three systems of social stratification: caste, estate and class. During the ancient kingdom, the social order was based on one's rank in the society centering on heredity rights to positions in the ruling class. Especially noteworthy is the *Kolpum* of Silla. The social structure of Koryo consisted of three major estates: civil and military class, commoners, and the various types of serfs. During the Yi dynasty social ranks were based on the traditional social order handed down from the Koryo period and on the new Confucian ideology: Yangban, commoners and the untouchables.

The twentieth century opened up with the annexation of the country to Japan. Japanese rule began formally in 1910, but in most respects, it started five years earlier. The Koreans were deprived of many economic privileges. In agriculture, for example, rice production was much increased, but was exploited by the colonizer. Furthermore, the Japanese colonial administration implemented a policy of systematic exploitation and political, as well as cultural, oppression. Politically, since Japan ran the government, all political protest was tightly suppressed, even more tightly as time went by. Culturally, there were periods when the Japanese tried to suppress certain Korean names, making everyone change to Japanese names. As well, the Japanese imposed the religion of Shintoism.

In the sixteen years between the end of colonial rule in 1945 and the military coup d'état in 1961, the South Korean people in the Republic experienced a period of political turmoil. They are chronologically illustrated as follows:

American Military Government (1945-48),
First Republic of Korea (1948-60),
Korean War (1950-53),
Student Revolution (1960),
Second Republic of Korea (1960-61), and
The Military Coup D'État (1961).

After two years of military government, political power rested in the hands of General Chung-Hee Park. At that time, he and hundreds of other military officers who had joined his regime took off their uniforms and started wearing civilian clothing. The power of the presidency still relied highly on the loyalty of the military elite and the executive bureaucracy. After 1963, there were sporadic student agitation, some press commentary, and occasionally politicized religious activities. Particularly, the year of 1972 saw the highlight of the regime's undemocratic and totalitarian nature through the *Yushin* (revitalizing) reforms. Park's authoritarian regime ended in 1979, when he was assassinated by the chief of the Korean Central Intelligence Agency. A short period of civilian rule was followed by military intervention and the imposition of martial law.

Historical Development of the Educational System

The recorded history of Korean education started with the establishment of Tae-hak (college) for upper-class youth in 372 A.D., and Kyungdang, a private school for youth from the common class in 586 in the Kokuryo period. Paekche, another kingdom south of Kokuryo, is also assumed to have had some form of higher education, although there is no written record available.[3] In 682, the Silla unified the three Kingdoms in the Korean peninsula under its own rule, and established the Kuk-hak (School of Nation) to train high ranking officials. Attendance at the Kuk-hak entailed undertaking a nine-year course for students between fifteen and thirty years of age. The Kuk-hak graduates, who were considered to have reached a superior standard, were given high positions in government after having succeeded at the civil service examination. Through the three kingdoms it may be observed that formal education, especially higher education, was distinctively and overwhelmingly of the Chinese tradition. It was basically humanistic and liberal in orientation and favored training of young men of the upper class.

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[3] This is primarily based on the two facts: first, Paekche is well known for its highly developed system of learning, as indicated by the case of Wang-In, who went over to Japan in 285 to become a royal teacher serving as the earliest transmitter of chinese characters and classics to Japan; secondly, it is known that some students from Paekche were to sent to Tang China for study along with those from Kokuryo and Silla in 640. See Ki-Eun Han, Hankook Kyoyuk Sa [Educational History of Korea] (Seoul: Pakyung Sa, 1963), p. 13.

During the Koryo period, three kinds of state learning institutions were developed: Kukja-gam (National College), and Dong-so hakdang (East-West school), controlled by the central government, and Ohbuhakdang (Five Department Schools) controlled by local governments. The Kukja-gam, which was founded in 992, limited its admission to the sons of high ranking government officials. Dong-so hakdang appeared in 1272, but its organization was unknown. Hyang-kyo was located in the provinces, and served primarily the local literary people. There were also two kinds of private higher educational institutions, Sibie-do (Schools of Twelve Masters) and the Sudang. The Sibi-do was established by a number of Confucian scholars to provide high-level learning. The Sodang, which was founded in the villages, was an elementary course for the common people, and continued even after the Japanese annexation.

Under the Yi dynasty, there were, by and large, four types of educational institutions: Sungkyunkwan, Sowon, Hyang-kyo and Sodang. The Sungkyunkwan was the first type and was established in 1398. It was primarily a training center for high-level civil servants like its predecessor in the Koryo period. This institution was completely supported by the government and was guaranteed a relatively high degree of autonomy. In contrast, the Sowon was fundamentally a private institution reflecting a Confucian scholar's personal interest in teaching youths respect for their ancestors. With royal grants and private contributions, Sowon became a financially self-sufficient institute with an academic purpose. Hyang-kyo was established in each county with the highest national institute located in the capital city. Attendance at these schools was exclusively limited to noble-class male offspring. Finally, there were one-room school houses called Sodang. The Sodang was ubiquitous throughout the villages, catering to local children for their primary education.

At this point it needs to be emphasized that there was a striking similarity between the higher educational system of the Yi dynasty and that of its predecessor. The national higher educational institutions such as Tae-hak, Kukja-gam, and Sungkyun-kwan of the two dynasties were oriented toward teaching Confucian thoughts and ethics, including literature and history. It was primarily devoted to preparing students for the state-run examination which led to high-ranking government jobs. To achieve this end, rote memorization of Confucian ethics and writing in Chinese characters were stressed. Accordingly, little consideration was given to provide the students with practical knowledge. Even provincial and village schools such as Hyang-kyo, Sowon and Sodang were in a similar situation.

The inheritance of the aristocratic view of education is deeply rooted in the modern educational system of the present. As in many other developing countries, education in Korea is still primarily a label on a tag, or a ticket to "yangban" (nobilities) of the old days, and membership in today's ruling class. In these traditions, education becomes primarily a private affair. Education for personal advancement outweighs all other considerations such as education for individual welfare and national development. Thus, Korean education, prior to the introduction of modern education, was aimed chiefly at producing government officials for the benefit of the ruling class. Naturally, education for commoners and women was neglected.

The first modern school was the Wonsan Haksa, a private academy established by a country magistrate in Wonsan area (presently North Korea) in 1883. Two years later, King Kojong issued a royal decree placing emphasis on the need for educational reform as a part of the national reconstruction. The King's inspiration extended to the establishment of two royal institutions; one was for medical training, and the other for foreign language education (Sang-man Park, 1965: 28). The royal decree was followed by a series of school regulations produced between 1895 and 1904 for the establishment of the various schools (Chon-suk O, 1964: 88). With the opening of the state-operated schools, American missionaries established modern high schools on the basis of the western concept of education.

From the annexation of Korea by Japan in 1910 until the liberation of 1945, education in Korea was administered on the basis of the Chosun (Korea) Education Ordinance. The Education Ordinance enacted in 1911, underwent revision in 1922, 1938, 1941, and 1943. The basic purpose or policy incarnated in this ordinance was to make the Korean people loyal subjects of the Japanese Empire, and this was increasingly accentuated with each amendment. In effect, special attention was paid to inculcating the Japanese culture and the spread of Japanese language. It promoted vocational education, general education in humanities and social sciences was discouraged in view of the fact that it would nurture nationalistic sentiments. A separate educational provision was made for the children of the Japanese in Korea, and another for the children of Korea (See Table I).

After liberation, Korean education shifted dramatically from a totalitarian approach to a more democratic one. Under the United States military government, the schools and colleges were remodelled along the American pattern of a 6-3-3-4 system. The new education movement against traditional, autocratic, and Japanese colonial education facilitated the adoption of new educational concepts and innovations.

Unplanned and unchecked by the government, the traditional aspiration for education resulted in the establishment of new schools at all levels. A strong desire for higher education was satisfied by the emergence of numerous colleges and universities. But these new schools had inadequate facilities, poor teaching staff, and meager funding.

TABLE I

YEARS OF SCHOOLING FOR KOREANS AND JAPANESE UNDER THE COLONIAL SYSTEM (1911)

	Number of Years of Schooling Provided for	
Type of School	Korean	Japanese
Ordinary or Elementary Schools	3-4	6
Higher Ordinary Schools	4	5
Girls' Higher Ordinary Schools	3	4-5
Trade Schools (Agriculture, Commercial, and Technical)	2-3	5
Short-Term Trade Schools	No limits in both Schools	
College	3-4 years, co-educational with Japanese except at private schools	

Source: Jae-Yung Han, "Modern Education in Korea," Korea Journal Vol. 2, No. 1, 1962, p. 7; and Jong-Chol Kim, Education and Development: Some Essays and Thoughts on Korean Education. (Seoul: Seoul National University Press, 1985), p. 161.

Changes in Educational Plans

Formal educational planning in Korea did not begin until after the Korean War, when the educational system was faced with the acute problem of restoration of facilities and the provision of teaching personnel. The Ministry of Education (MOE) prepared the Six-Year Plan for the Completion of Compulsory Education (1954-59), with support from the United Nations Korean Reconstruction Agency. The plan, the first experience of this type for Korea, included an active rehabilitation program through the provision of a number of additional classrooms to meet the increasing enrollment of school-age population. However, the plan was deficient in funding from the beginning, and only 38 percent of the amount requested to implement it was secured. As a result, the ambitious plan was nullified and students staged the historic April Revolution of 1960.

After the military coup d'état in 1961, planning as a function of government was even further emphasized. The Five-Year Educational Development Plan (1962-66) was drafted by the CERI (Central Education Research Institute) at the request of the Minister of Education. The planning office reviewed and edited the draft plan in 1961. One of the aims of the plan was to provide a link between the educational sector and the First Five-Year Economic Development Plan. It covered issues such as compulsory schooling, secondary and higher education and represented the first comprehensive attempt at Korean educational planning. At the beginning of the 1960s, one of the most serious problems was unemployment among educated people, which resulted from the oversupply of individuals who were graduating from various educational institutions. Therefore, special consideration was given to solving this problem. The plan, however, revealed a lack of coordination among programs at each school level and between the related ministries.

To overcome this problem, a long-term plan for education was undertaken in 1965 with technical assistance of the regional Advisory Team of UNESCO. The plan consisted of projections of student enrollment, financial requirements and other needed resources. Some arrangements were also made for coordinating output from different levels of schooling for the next 20 years. With experience behind them, together with the atmosphere of that time, especially in the field of economic planning, the long-term education plan was eventually formulated in 1966 by educational plans of the Ministry of Education (MOE). This plan was based on the techniques used by the UNESCO advisory team including a manpower approach, which was a special concern of the MOE. With reference to the Long-Term Projections for Korean Education (1960-80) which emanated from the plan, the Ministry of Education attempted to develop both a nine-year compulsory education program (1965-73) and a ten-year secondary education program

(1965-74). Later these two plans were revised and became the second Five-Year Plan for Compulsory Education (1967-71) and second Five-Year Plan for Secondary Education. On the basis of the projection as it appeared in the Second Five-Year Economic Development Plan (1967-71), the number of elementary school students was estimated to be 3.37 percent of the total population. Similarly, secondary school enrollments were projected to increase the number of students enrolled in vocational high schools in order to meet the demand for economic growth.

The MOE responded favorably to these developments and launched into the system of long-term comprehensive educational planning.[4] The Council for Long-Term Comprehensive Educational Planning (CLCEP) was organized in February, 1969, under the prime minister. This council produced a draft 15-year plan (1972-86) in 1970 which identified these ten major points of emphasis for the plan period:

(1) Expansion and development of secondary and higher education.
(2) Innovative changes for the improvement of graduate education.
(3) Introduction of an innovative structure for teachers.
(4) Use of educational technology.
(5) Improvement of research and development in education.

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[4] Besides the prevalent planning activities in other government ministries, the 15th General Assembly of the World Confederation of the Organizations of the Teaching Profession (WCOTP) held in Seoul in August, 1966, gave a significant impetus to the planning movement in Korean education.

(6) Emphasis upon education in science and technology.
(7) Cultivation of intellectual inquiry, developmental values, and cooperative attitudes.
(8) Promotion of cooperation between school and industry.
(9) Emphasis upon education for reunification of the divided country.
(10) Optimum investment for education.

Despite two years' work by 550 participants, the plan had a mixed history. With the practical support given by President Park, Minister of Education Kwon saw the need for machinery to establish the educational policies. However, in 1971, the new Minister of Education decided to replace the National Council for Long-Term Comprehensive Educational Planning with an Educational Policies Council. This Council, established as an advisory body for the Minister of Education, emphasized relatively short-term policies. With the Council abolished, interest in continuous long-term educational planning declined. Furthermore, inadequate support from the budget agency was a serious barrier to the implementation of the plan.

Finally, the Educational Sector Plan of the Fourth Five-Year Economic Development Plan (1977-81) was prepared by the Korean Educational Development Institute. In contrast to the previous plans the following measures for improving the quality and increasing the amount of education available was proposed:

(1) To increase the provision of the supply of free textbooks.

(2) To subsidize full operational expenses and teachers'research grants that had hitherto been borne only partially by the government.
(3) To increase the number of classrooms through a suitable building program, and to reduce the average number of students per class to 60 in large cities and to 45 in rural areas.
(4) To upgrade the academic qualification of teachers, and also to increase the cadre of teachers.
(5) To draw up a code regarding the level of physical facilities to be provided by schools and ensure regular maintenance and repair.

The proposed Educational Sector Plan was also so financially limited that it was in the same situation as previous educational plans in Korea.

CHAPTER II

REVIEW OF RELATED LITERATURE

This chapter presents a brief review of the literature which was most relevant to the study. The literature deals with the conceptual or empirical foundations in educational planning and development in the Third World countries. Special attention was given to identification of the concept, evaluation, and the limitations of educational planning for development.

Development, Education and Educational Planning in the Third World

This section focuses on the concept of development, the role of education in development, and educational planning for development.

Concept of Development

Development has become a key word since the Second World War. In ordinary language, the term refers to a process of change which occurs in things, or in systems. Change, however, is not necessarily development; an observed change may be redundant or aimless. Change is considered to be development only if those who are affected by it perceive it as a movement in a positive direction.[1] Accordingly, Sanders argued that "the critical element of a definition of development whether it is used with regard to economies, societies, or educational systems is the criteria which are used to judge whether change in positive direction indeed occurs" (1969: 277).

In contemporary social sciences, however, a term like *development*,[2] which is regarded by its users as *positive* or *highly valued*, has been ambiguous in its usage especially when political and ideological overtones are involved. There have been few attempts to resolve this ambiguity. The United Nations Secretary General defined the concept of development as follows: "Development is growth plus change; change in turn is social and cultural as well as quantitative."[3] Todaro viewed it as

> a multidimensional process involving major changes in social structures, popular attitudes and national institutions as well as the acceleration of economic growth, the reduction of inequality and the eradication of absolute poverty (1977: 62).

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[1] However, it is common to refer to certain change as development; child development (meaning maturation and growth) and development of a theme in music (unfolding or expostulation of a musical statement).

[2] There are many words which are used synonymously with *development*, for example, social change, modernization, industrialization and economic growth, etc. .

[3] UN Secretary General statement as quoted by Phillips (1964), p. 66.

Similarly, Dudley Seers (1973) has observed that development is not only the elimination of poverty, but also the elimination of inequality in whatever form it might exist. From this exploratory review of some proposed definitions of development, the core characteristics of the notion of development as used today can be logically inferred. Development refers to change toward a desirable end. To this end, development involves a multi-dimensional process; however, the emphasis of numerous scholars has been mainly with the economic sphere--economic growth and equality in the distribution of wealth.

The Role of Education in Development

Educational Expansion in the Third World

For the Third World, the United Nation's first decade and the honeymoon period of African independence were optimistic years, as far as the increase in opportunities for education was concerned. For example, M. K. Bacchus declared:

> between 1960 and 1970 primary school enrollment in the underdeveloped countries increased in the average at about 10.5 percent per annum, and tertiary level enrollment increased at more than double that rate--at 23.2 percent and 25.5 percent per annum, respectively (1981: 1).

This tendency of educational expansion in favour of secondary and higher education continued through the 1970s. As far as Asia was concerned, UNESCO had organized a meeting of its member states in Karachi in late 1959 to consider the needs for education. From this meeting arose the famous Karachi Plan of 1966, a blue-print for educational expansion throughout Asia (Duke, 1966: 73; Bacchus, 1981: 215; Dore, 1976: 1).[4]

The important question which follows is "What are the consequences of this rapid expansion of the secondary and tertiary educational system?" First of all, there is the question of wastage. There are two forms of wastage of human resources which have accompanied the rapid expansion of education in Third World countries. The first is dissipation, i.e. dropping out of school prematurely or repetition of grades. These have been a most frustrating experience for most Third World countries (See Todaro, 1977: 258). The second form of wastage that is equally serious for the developing nations is the problem of the educated unemployed. Another consequence of the rapid expansion of secondary and tertiary education in the 1960s and 1970s was increasing costs.[6] Finally, these countries have produced an increased number of University graduates who are often "over-educated" for the jobs (Carnoy, 1980: 9). Ronald Dore (1976) calls this the "diploma disease," and discusses the "qualification earning" as follows:

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[4] Similar regional conferences were held later for African States (Addis Ababa, 1961), Arab States (Tripoli, 1966) and Latin American countries (Santiago, 1962). Quoted in Bacchus (1981) P. 216.

[5] For example, in Sri Lanka, the rate of unemployment among graduates from the tenth to twelfth grades is higher than 30 percent; this is in contrast with a 5 percent unemployed rate among those without schooling (ILO, 1971, p. 3). See also Todaro (1977), p. 248.

> Unfortunately, not all schooling is education. Much of it is mere qualification-earning . . . ritualistic, tedious, suffused with anxiety and boredom, destructive of curiosity and imagination; in short, anti-educational (p. ix).

Theories of Educational Expansion

There are two complementary theoretical frameworks which have been used to justify the expansion of the educational systems in Third World countries. These are modernization and human capital theory. While modernization theory dominated the thinking and research of sociologists, human capital theory was formulated by economists .

The modernization theory, as we know it today, emerged in the 1950s and continued until the early 1970s. While this theory has been interdisciplinary,[7] it has been particularly important for sociologists and social psychologists

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[6] One of the early critical examinations of world-wide educational expansion was made by Coombs (1968). Similar arguments may be found in World Bank (1980).

[7] The modernization theory has been used by sociologists, psychologists, political scientists, economists, and social and cultural anthropologists.

(Eisenstadt, 1966; Hagen, 1962). The basic development strategy which derives from modernization theory is the creation and expansion of the modern industrialized and high-productive sector of the economy. The benefit of such development would, it was assumed, spread from the modern to the traditional or agricultural sector of the economy (Irizary, 1980: 338). Another aspect of modernization theories was that education would change the traditional values which people held and which adversely affected the modernization process. According to Lerner (1964), McClelland (1967), and Inkels (1969), education is of importance in transforming traditional attitudes and behavior which, in turn, facilitates modernization.[8] This is the individual modernity theory of education which emphasizes the motivations, psychology and behavior generally assumed to be necessary for industrial and socio-economic development.

From the very outset, certain elements of modernization theory were criticized by those who shared a more structural view of development (Valenzuela and Valenzuela, 1981: 20-21). Michael Armer (1977), who comprehensively analyzed the individual modernity thesis, concluded that "there is little or no evidence to support the propositions" underlying the modernization theory (p. 88). Frank (1967), Galtung (1971), and Wallerstein (1974) have been particularly critical of this approach, because it assumes that socio-economic change is directed toward a single model of society represented by the United States or Western European nations.

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[8] See, for example, Third Five-Year Plan (Delhi: Government of India Press, 1961), p. 1.; Third Five-Year Plan, (Karachi: Government of Pakistan, 1965), p. 17.

The other complementary approach to development which emerged at about the same time is the human capital theory, which has directly influenced the field of education and economic development. Human capital theory rests on the assumption that formal education is highly instrumental and even necessary to improve the production capacity of a population. Some notable works include Harbison and Myers' Education, Manpower and Economic Growth (1964), Schultz's Economic Value of Education (1963), Becker's Human Capital (1964), and Denison's The Source of Economic Growth (1962a).

Harbison and Myers, for example, used 14 indicators in showing the development levels of education and the economy in 75 countries in an attempt to investigate the relationship between economic and human resources development. They found found that a strng positive correlation (r= .897) existed between the composite index indicating levels of human resources development and per capita GNP.[9] According to the composite index, 75 countries were classified as underdeveloped countries. Development strategy was highlighted in relation to each category.

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[9] This high correlation does not necessarily imply a direct causal relationship between economic growth and human resource development.

The human capital theory was never without its critics from the beginning of its emergence (See for instance, Shaffer, 1961). By the 1970s, belief in education as a panacea for development had entered an "age of scepticism" (Doeringer and Piore, 1971). Karabel and Halsey, in their Power and Ideology in Education, contended that

> in the Third World, the human capital approach . . . no longer seemed to provide an adequate framework for understanding the relationship between education and the economy. And once under attack, human capitalists found themselves in a difficult position, for their input-output models had never offered insight into what was going on in the "black box" of education that would explain its correlation with earnings (1977: 15-16).

Recent criticisms of the human capital approach have generally focused on some of its unrealistic assumptions. In challenging the causal relationship between higher earning and productivity, Ivar Berg, in Education and Jobs: The Great Training Robbery (1971), has put forward a theory of credentialism. In his view, educational expansion adds little to worker productivity. Rather, oversupply of the educated merely leads to upgrading of qualifications required for entry to an increasing range of professional and technical occupations.

As a manifestation of this growing skepticism about the economic value of formal schooling, vocational education, non-formal education, and community education began to be favored in many countries. However, in Education and Social Change in Ghana (1965), Philip Foster showed that the active sponsorship of technical/vocational education evoked little popular response from the local population, mainly because they favored academic-type schools. Further, this was because of the higher incomes which those who attended such schools were likely to receive, not necessarily because of the increased production of the graduates. Coombs and Ahmed (1974) argued that non-formal education is generally aimed at workers with rather low levels of schooling and not usually those in the main stream of the educational system. Therefore, upgrading of skills can take place through this type of education without creating great demands for extra incomes based on higher level credentials.

However, the most undermining challenge to the view that education contributes to development, especially from the modernization and human capital perspective, has come from radical and neo-Marxist camps. Ivan Illich, in his Deschooling Society (1971), called the entire authority structure of public education into question by rejecting the market values on which it rests. He therefore argued that compulsory schooling should be discontinued altogether. Martin Carnoy, in his Education as Cultural Imperialism (1974), contended that schools in many developing countries were simply institutions which reinforced neo-imperialism and neocolonialism. They continued to serve the interests of the elite of previous colonial powers or what the dependency theorists called the *core countries*. Empirical research in France by Pierre Bourdieu (1977) argued that schools provide the dominant classes with *cultural and material capital* which enables them to participate more fully in the social system and its rewards. Paulo Freire (1970) criticized "the banking concept" of contemporary education and introduced "conscientization" (p.19) for overcoming the oppression which such education among the poor brought about.

Having examined the views and theories about the relationship between education and development, attention will now be directed toward educational planning and development issues.

Educational Planning for Development

Although educational planning has been in operation for quite some time, the concept is not clear. Several attempts were made in the past to define the subject. In 1958, the Inter-American Seminar on educational planning expressed the view that:

> The overall planning of education is a continuous, systematic process, involving the application and coordination of social research methods, and of principles and techniques of education, administration, economics and finance, with the participation and support of the general public in education for the people with definite aims in well-defined stages and for providing everyone with an opportunity of developing his potentialities and making the most effective contribution to the

> social, cultural and economic development of the country (UNESCO, 1965: 13).

The definition is quite comprehensive and emphasizes the point that educational planning is much more than preparing a blue-print. It is a continuing process. However, planning, even educational planning, has been defined in a number of different ways for different purposes. Jin-Eun Kim suggested that educational planning might be of the following three types:

> (1) planning which is viewed as part of a problem-solving process,
> (2) planning which is considered part of an administrative process, and
> (3) planning which is part of a development strategy (1975: 74).

Whatever approach is used, it is clear that educational planning has been regarded as a tool for national development. Saxena stated that educational planning, or planning for the allocation of resources to the educational sector, is thus directly linked to general development planning.

For national development, several basic approaches to educational planning have been used. Saxena classified them into six categories:

> (1) social demand approach,
> (2) aggregate method approach,
> (3) manpower requirement,
> (4) rate of return,
> (5) human resource development approach, and
> (6) institutional approach (1979: 34).

The social demand and manpower approach are particularly fashionable in the Third World.[10] Therefore, this paper will focus on two approaches with special reference to goals and targets, and the underlying assumptions in educational planning.

In the social demand approach, educational needs are viewed in terms of general cultural and political objectives, such as the need to attain a certain level of literacy, or to achieve a universal primary education.[11] As Davis and Hudson pointed out, a typical plan goal often states, "all children aged 6-11, will receive primary education" (1980: 3). The target for schooling, usually through primary and sometimes through secondary levels, is based on the future projection of demand by considering anticipated population changes, and changes in national goals. The assumption in this approach is that education is "a social infrastructure for development purposes and is an end in itself" (Phillip, 1964: 27).

In spite of the rhetoric of goal/targets and the underlying assumption, "educational planning in recent years, has become the target of considerable criticism" (Weiler,

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[10] This typology is a simplification designed by academics, but most planners mix their approaches.

[11] Most regional conferences, such as those held in Addis Ababa, Karachi, and Bogota, use the social *demand approach* to identify long-range educational targets. The Robinson Report on higher education in the United Kingdom is considered as another example of this approach.

1978: 251). In the social demand approach, demographic change continues to affect enrollments and shape educational plans. But there is strong pressure among the population for a certain amount or kind of schooling. Such pressure can constitute a conflict between political and developmental needs (Adams, 1969: 148-49).

Unlike the social demand perspective, the manpower approach attempts to link the educational system to economic growth.[12] The goals and targets of educational planning are the results, or partially the results, of economic analysis and projection. Weiler identified two sets of assumptions in this approach: first, education can contribute to economic development through fulfilling the manpower needs of the labor market; second, both the baseline information about the present and the target information about the future can be ascertained with sufficient reliability (1978: 250). In short, the approach assumes that education can serve as a motor of development, especially economic development, and that the future development of education is not only foreseeable but also manipulative.

There are three types of criticism of the manpower approach. First, to some educators, it borders on the immoral to examine educational systems basically as a means for occupational training.[13] Even if the training of manpower is accepted as one function of the schools, it does not follow that schools should be the only or the prime source of skilled manpower (Adams, 1969: 150). A second category of criticism is more technical in nature. The most difficult task is estimating the future requirements for manpower (Harbison, 1964:111). The difficulties are further enhanced by the employment classifications and occupational ratios. Finally, the third type of criticism is social in character. The influence of the privileged section may make these estimates more oriented to higher education. On the other hand, for the lower levels of occupational structure, the unskilled, semi-skilled or ordinary skilled labourer-to-be may be deprived of many benefits under this approach (Saxena, 1979: 36).

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[12] Early contributions to theory and models of the *manpower approach* were made by Tinbergen and Bos (1965) and (Correa and Tinbergen 1962). They are based on human capital theory and neo-classic economics.

As already discussed, both of the approaches "were built on a number of assumptions that were not theoretically and empirically validated, and their analysis could not proceed without these assumptions" (Huq, 1975: 99). In any case, they indicate an important implication for future research, i.e., that more empirical research will clearly be warranted to test the assumptions of educational planning.

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[13] Indeed, some of them may be found in the language of economic analysts in terms of *inputs, outputs, and productivity of the schools.*

Evaluation of Educational Planning for National Development

Evaluation of educational planning in relation to the actual educational system's performance is necessary to assess the potential contribution of education to national development. For this purpose, this chapter deals with the concept of evaluation, methods and dimensions of the educational system's performance and some empirical results of evaluation research.

Concept and Methods of Evaluation

Stated simply, "evaluation is a process by which relevant data are collected and transformed into information for decision-making" (Cooley and Lohnes, 1976: 3). House (1980) stated that evaluation is comparative, is concerned with standards, involves value judgements, and is directly oriented to the decision-making process. As such, evaluation is absolutely crucial in determining the extent to which it has accomplished what it set out to accomplish. However, there has been much confusion and controversy in the evaluation of education's contribution to development. Coombs identified the difficulties of evaluation in the following statement:

> For one reason, educational objectives are seldom clearly and specifically enough defined, or sufficiently agreed upon, to provide a clear framework for evaluation. Another reason is that

> the *outputs* of an educational system are much harder to identify and measure in any meaningful way than its *inputs;* hence, in practice it is extremely difficult to compare the one with the other in order to assess the efficiency of the system. It is even more difficult to assess the full longer-run benefits of education accruing to individuals and to all society over time, in order to compare these aggregate benefits with the costs of achieving them and to calculate the *rate of return* on the educational investment (1969: 29).

Most studies investigating the links between education and development basically have an economically oriented approach.[14] They have treated education as an economic investment, or prerequisite, for achieving a given rate of economic growth and advancement. As Fagerlind and Saha pointed out, "clearly these assumptions are based, explicitly or implicitly, on human capital or modernization theories" (1983: 171).

Early studies used modest *correlational residual approaches.* Those, using the so-called *correlational approaches,* for example, explicitly attempted to demonstrate a correlation between the per capita income level of country and the average amount of schooling of the population. But the correlational studies of this type are "no indication of causality" (Simmons, 1980: 32). Similarly, users of the *residual* approach attributed the residual variance in output, which was unexplained by the value of capital and quantity of labor, to the increase in quality of labor. They usually suggest that education is an important constituent of the *residual* factor, but cannot provide further evidence of the connection with this method (Ibid: 32).

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[14] For a general review and critique of these approaches, see for example, Vaizey (1962) pp. 37-53 and Bowen (1964).

Recent survey studies of school effectiveness and other input-output studies have generally used the *educational production function* model.[15] An example of the model is:

$$Y = f\ (F,\ L,\ P,\ S)$$

where the educational output Y is a function (f) of various inputs such as family background (F), pre-school ability (L), peer group influence (P), and school factors (S). Many evaluation studies have used this model. Some examples are as follows: Equality of Educational Opportunity (1966) by James S. Coleman; Inequality: A Reassessment of the Effect of Family and Schooling (1972); and Who Gets Ahead? The Determinants of Economic Success in America (1979), by Christopher Jencks et al. Fagerlind and Saha identified the three methodological problems: (1) the level at which the data are collected and analyzed, (2) the extent to which the characteristics of populations studied affect research findings, and (3) the nature of the relationships between the variables themselves (1983: 171-75).[16]

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[15] For a thorough discussion of the educational production function model and its linear forms, see Simmons and Alexander (1980) and Luecke and McGinn (1975).

[16] There are, of course some other limitations in the use of the educational production function. See R. Gary Bridge et al., (1978) and Simmons and Alexander (1980).

Given the problematic nature of the previous evaluation design in the pursuit of direct causal relationship between education and national development, it is necessary to look at the two factors separately. In other words, the results of the educational system's performance can be compared with the desired outcomes. Coombs put it this way:

> Simple logic suggests that the way to begin is by asking what the system is supposed to do -- what its objectives and priorities are. The next logical step is to establish some criteria of performance relevant to these objectives and priorities, and the third step is to gather and analyze evidence in relation to these criteria which will reveal how well or poorly the system is actually doing in terms of its objectives (1969: 28-29).

This perspective is crucial in guiding the evaluation methods of educational planning for national development. Here, the important question to ask is "How well does the performance of the educational system meet the goal and targets, and especially the underlying assumptions of educational planning for national development?"

Dimensions of the Educational System's Performance

The educational system has many dimensions to be examined. They are related to each other, but, for discussion purposes only, categorized into three sets of criteria:

(1) quantity and quality,
(2) input and output, and
(3) equity and efficiency.

Quantity and Quality

The key words *quality* and *quantity* are among the most slippery terms when applied to an evaluation of education. Sometimes, these words are used in a neutral and purely descriptive sense, and at other times they are used in a evaluative sense. Still some others are different concepts entirely. Coombs suggested a way to avoid such confusion:

> This can be done by stripping the term *qualitative* aspects of all evaluative connotations and using it only in its neutral descriptive sense to describe changes of any kind in an educational system, other than a change in size alone. The *quantitative* aspects, on the other hand, should be used to connote changes in size, pure and simple (and should not be equated with number *per se*, which often have application to the qualitative aspects as well) (Coombs, 1969: 28).

Let us examine the quantitative aspects of an educational system's performance first. Fagerlind and Saha identified literacy, increase in educational expenditure, and enrollments and participation rates as the traditional indicators of progress in education. However, they argued that the difficulty with these indicators is that they present little or no indication of distribution of educational resources among all social groups and sectors. These writers raised questions of equal participation in education and pointed out that other measures of educational outcomes are crucial for the accurate assessment of education's contribution to socio-economic development (1983: 167). Saxena analyzed the achievements and shortcomings of educational plans using certain criteria:

(1) The indicators of achievement are:

- a. Progress in literacy.
- b. Student enrollment.
- c. Growth in size of institutions
- d. Increase in number of teachers

(2) Some important shortcomings are:

- a. The unfulfilled task of providing elementary education to all boys and girls up to the age of 14.
- b. Regional imbalances
- c. Lack of quality at all levels.
- d. Increase in the number of educated unemployed (1979: 1).

Assuming that an educational typology requires a great number of indicators, the report of the seminar on educational planning which was held in Banyulus (September-October, 1967) suggested the following:

(1) Enrollment by age group or by representative age in the three levels of education--elementary, secondary and tertiary.
(2) Output drop-out and repetition.
(3) Pupil teacher ratio.
(4) Enrollment ratios.
(5) Average ages for entering and leaving.
(6) Costs total and unit costs per pupil per square meter of building.
(7) Teachers.
(8) Literacy.
(9) Town-Country ratio of distribution (UNESCO, 1970: 103).

In his doctoral dissertation, Jin-Eun Kim assessed the success of implementing the quantitative goals of educational development, using three variables: growth in enrollment and proportion of relevant age groups served, increased numbers of teachers, and their ratio to enrollment. These variables were analyzed in relation to goal-targets (Kim, 1973: 82).

Attention will now be turned to the qualitative aspects of the educational system's performance. Realizing that the strategy of linear expansion has created a serious situation in education, particularly in developing countries, "there has been a shift from the emphasis on *quantitative* educational planning to . . . *qualitative* educational planning and change" Levin, (1981: 16).[17] [illegible]alin also indicated the importance of qualitative aspects of the educational system's performance. He contended that growth without change in direction and targets is no longer meaningful, either in general policy or in educational policy (1970: 437).

In attempting to raise the quality of secondary education to the society of Papua New Guinea, Bacchus used the following sub-issues under broad stated development goals:

> (1) Equalizing secondary educational opportunity.
> (2) Improving the quality of work offered in the high schools through improving their physical conditions and the instructional facilities available in them.
> (3) Developing a more relevant curriculum for these schools.
> (4) Raising the standards and ensuring an adequate supply of trained secondary school teachers (1987: 71-72).

Jin-Eun Kim assessed the qualitative aspects of changes in terms of organizational structure, school curriculum, and teacher education (1973: 81-82). The International Institute for Educational Planning also turned somewhat from quantitative to qualitative aspects of educational planning. From the practical, economic or sociological point of view, the following indicators were suggested for use in order to ensure proper control and improvement of quality in education:

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[17] An example of these approaches is the use of time-series or longitudinal designs. See Fagerlind and Saha (1983), pp. 176-77.

> (1) Definition of general aims of the education system.
> (2) Development of these into detailed specific aims.
> (3) Development of a curriculum which will be related to the specific aims of the system.
> (4) Provision of facilities and resources, including buildings, equipment, teachers, etc., which will enable this curriculum to be put effectively into practice.
> (5) Establishment of specific techniques of quality control which will make possible continuous evaluation of achievement in relation to the aims (Beeby, 1969: 284).

Some specific aspects of the quality of the educational system's performance will be featured in the discussion of the next set of criteria.

Input and Output

There are two broad sets of criteria that can be used in judging the educational systems' performance. These are input and output variables. The former is concerned with all inputs to the educational system to increase efficiency and effectiveness, and the latter is concerned about outcomes from the system. Coombs argued that, to a considerable extent, quality is based on the system's input rather than its outputs. Such things are:

> (1) Pupil teacher ratio.
> (2) Qualifications structure of the teaching staff.
> (3) Amount of space available per student.
> (4) The amount and type of equipment and instructional materials to the number of students, and
> (5) The over-all expenditure per student (1969: 29).

The hidden premise is that if the inputs are *good*, the outputs must *ipso facto* be good. However, there might be different views with respect to the same situation from economists, sociologists or politicians.

McGinn argued that schooling should carry students to some meaningful level of achievement and, therefore, early leaving or desertion or dropping out reflect negatively on the educational system. He used such possible indicators of improved quality of the educational product variables as testimony about education, higher rates of employment of graduates, or high salaries of graduates.

In judging the quality of school or school systems, Coombs used internal quality as an input variable and fitness as a output variable. Internal quality is judged by how far the school, or system attains the goals it set out to achieve. In contrast, fitness refers to the extent to which the system as a whole produces the kinds of educated persons of which society stands in greatest need.

Bacchus emphasized the efforts to improve the supply and quality of teachers for the success of the suggested program of reform in secondary education in Papua New Guinea (1987: 160). Similarly, Beeby analyzed the training of teachers as a key variable in the development of the educational system. Speaking primarily of developing countries, he defined stages in the development of national systems of education on the basis of the personal education of elementary school teachers, and the amount and kind of inservice training they have received (1966: 72).

In contrast to Beeby, Sanders emphasized fitness of educational programs in terms of economic and social criteria. He used such input variables as pupils and their learning experiences, and such output variables as desired capabilities (1969: 276-93). Coombs assessed the quality of fitness by using possible indicators:

> (1) The number of vacancies for skilled and professional workers.
> (2) The number of educated unemployed.
> (3) The number of unemployed because of inadequate education.
> (4) The number of foreigners in key positions in government and industry.
> (5) The number of doctors, engineers, and teachers per 100,000 of the population.
> (6) The percentage of adult literates.
> (7) The percentage of women and girls educated.
> (8) The number of books and newspapers in circulation.
> (9) The number of some form of adult education.
> (10) The percentage of those qualified to vote who do in fact vote.
> (11) The percentage of the gross national product and of the national budget spent on education (1969: 66-67).

In studying the improvement of secondary education in Papua New Guinea, Bacchus considered both qualitative and quantitative aspects of certain input and output variables. He used the following criteria:

> (1) The number of students who should be receiving secondary education vis-a-vis the demands made for such graduates by tertiary level educational institutions and the formal and informal sectors of the job market.
> (2) The ways and means of achieving the suggested enrollment targets within the budgetary constraints facing the country were examined.
> (3) The nature of the secondary education offered in the existing high schools, judged by such inputs as:
>
> a. the type of curriculum to which these pupils were exposed, and its relevance to the overall needs of the society,
> b. the quality and quantity of the teachers produced for these schools,
> c. equality of access to secondary educational facilities by various groups in the society (1987: 4).

Equity and Efficiency

As a controversial criterion in relation to educational achievement, Anderson and Bowman used the *equity and efficiency* concept. The equity and efficiency concept included the following:

> (1) Schooling to bring every child to a given standard;
> (2) Enough education enough to allow each person to reach his/her own potential;
> (3) continued opportunities for schooling as long as gains in learning per input of teaching match some agreed norm.
> (4) Efficiency is, however, seen as "a rationality concept; to get the most out of the least,

> whatever the nature of the rewards or ends may be" (1964: 15-16).

In relation to the efficiency concept, other criteria such as productivity or effectiveness have been much debated. According to Collins' survey, it shows us that "the better educated employees are not generally productive, and in some cases are less productive among samples of factory workers, maintenance men, department store clerks, technicians, secretaries, bank tellers, industrial scientists, military personnel and civil service employees" (1971: 1005).

There has been some confusion at the educational policy making level between equal access and equal opportunity. As the International Commission for the Development of Education (ICDE) pointed out, the two concepts do not mean the same thing, for equal opportunity "must comprise equal chance of success" (Faure et al., 1972: 71-72).

Some of the economic aspects of educational effectiveness or benefits are already discussed in the last section on the theory of educational expansion. In particular, the cost-benefit or rate of return approach is based on the principle that education yields benefits in the form of increased production. These are reflected in increased earnings of educated workers, and can be compared to costs and evaluated over time as an investment (Davis and Hudson, 1980: 8).

Some Results of Empirical Evaluation Research

What are the actual results of the research on the empirical evaluation of educational planning for national development? The critical problems currently confronting educational development throughout the world will be more thoroughly analyzed in order to establish a realistic context for evaluating research in educational planning for development. Williamson suggested the following three problems:

> (1) Rural-urban imbalances in the provision of education are found especially in terms of number and qualities of school and teachers.
> (2) Academic stream oriented curriculum which creates imbalances between skills generated by the educational system and actual needs (e.g. surfeits or surpluses and shortages of critical skills).
> (3) Unequal opportunities are observed among different groups such as socio-economic profile, sex, ethnic origin and regions, especially in higher education (e.g., process of selection, promotion, and future determination of careers). (1979: 16-24).

Similarly, Coombs also indicated the following five types of maladjustment occurring in education:

> (1) The gap between educational demand and supply number of drop-outs, repeaters, and educational quality and effectiveness.[18]
> (2) Imbalance between educational output and the economy's manpower needs over-produced in some fields (e.g., lawyers and liberal arts graduates) and under-produced in other areas (e.g., engineers, technicians and nurses).

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[18] See also Benhamida (1973), p. 164.

(3) Moribund conditions of curriculum and pedagogical methods--obsolescence, irrelevance, and inappropriateness.
(4) Outmoded administrative arrangements, their anachronistic ways of recruiting, training and utilizing professional personnel, and their lack of adequate means for self criticism and self-renewal.
(5) Education's percentage share of total national income has increased rapidly, but this trend cannot continue in view of the competing financial demands of other important public needs (1969: 19-25).

If we look at the case studies of educational planning and actual implementation in Third World countries, these kinds of problems can be more clearly grasped.

Secondary education in India has in the past, for example, often been referred to as the weakest link in the entire educational chain. Carnoy (1974) argued that the overall progress in the direction of quality of education has been disappointing in spite of the tremendous strides and the total enrollment ratios. It is not surprising that this education was entirely of a literary and academic character, and vocational education had no place in the scheme. Moreover, secondary education became geared to the requirements of
the universities.

In the examination of the planned and actual quantitative development of education, Adesina (1974) argued that: first, the quantitative targets set forth in the educational plans have not been achieved; and second, that the orders of priority implicit in the verbal statements of the plans have in fact been reversed during the process of implementation. Another study conducted by Taiwo (1976) showed that a great percentage of Nigeria's national budget was allocated to education and manpower training. However, problems of education were found in the low academic standards in primary and secondary schools, lack of trained teachers, and inadequate equipment in schools.

In an analysis of educational and development plans in Ethiopia from 1944 to 1968, Bjerkan attempted in 1972 to find to what extent these needs have been fulfilled. Compared with the "desired averages" of the Addis Ababa plan, the following results were found:

(1) The target of enrollment would not be reached within the target dates;
(2) The financial support for education was still below the "desired averages" of the Plan;
(3) The increase of enrollment had not been matched with a corollary expansion of the school plant resulting an over-crowding of classrooms;
(4) the school system was still suffering from a high percentage of attrition and a low percentage of girls enrolled.

In addition to these problems, there were disparities in the distribution of 1980s educational opportunities among Ethiopia's different regions, between urban and rural areas, between males and females, and among its various national/ethnic groups. The irrelevance of the programs and curricula was obvious at all three levels of the system. Finally, he concluded that educational planning in Ethiopia did not have any significant impact in directing and shaping the pattern of development of Ethiopian education.

In the past several pages, some significant problems in educational planning were identified in several Third World countries. The next logical question is why the intended results of education were not realized in practice. As Williamson pointed out, "this problem is vital in the field of studies of development and underdevelopment" (1979: 9). This issue will be dealt with in the next section.

The Limits of Educational Planning for National Development

In the previous section, it has been shown that the intended consequences of planning in education for national development were very often not realized; instead of acting as a catalyst for social change in poor societies, education has often stabilized the *status quo*. There has been no lack of explanation among researchers, planners and even among decision-makers themselves for these limitations or shortcomings. In this chapter, discussion will be focused on two different view points: the functionalist perspective and alternative diagnosis.

Functionalist Perspective

The functionalist perspective assumes that the schools exist as an agent of social reform and that the limits of their ability to change society are regarded as dysfunctions. For example, human capital and modernization theorists suggest that differences in achievement are due to these factors:

(1) lack of familiarity with the testing procedures;
(2) curriculum deficiency, that is, less opportunity to learn in less-developed countries;
(3) the poverty of school resources; or
(4) the disadvantaged backgrounds which larger proportions of children in less developed countries experience the social deprivation theory (Inkeles, 1979).

In relation to implementation of educational plans, the explanation of shortcomings focuses on internal factors of the educational system. Weiler suggested that one contributing factor has been "an initial over-estimation of available resources" or "intervention of competing priorities" (1984: 338). He pointed out the ambitious and sometimes contradictory nature of the objectives coupled with resources, organizational weakness affecting the design, implementation and administration of educational programs and projects. This view, however, does not account for the difficulties encountered by educational planning in countries where objectives are generally realistic and resources sufficient.

Citizens for Democracy in India (1978) summarized the inappropriate implementation theory which generally assumed and blamed the failure on the following factors:

(1) Irresponsible bureaucracy,
(2) Irresponsible teachers,
(3) Pedagogic or technological solution,
(4) Inadequate priority in education, and
(5) Lack of adequate resources (pp. 67-69).

While no one denies that the basic problems have to bear considerable responsibility for the failure to implement educational plans, they are not the only culprits. The responsibility for implementing educational plans rests on the society as a whole, not on any of its sub-systems (Ibid: 67-69).

In the above brief discussion, it was indicated that the functionalist perspective has limitations in providing appropriate explanation of the failure to implement educational planning for national development. Too often the perspective ignores the high complexity and multiple links with the rest of the society (Schiefelbein, 1975: 27). In the list of observation on failures and shortcomings of educational planning, Weiler contended that:

> Planning has been conceived and executed in a social vacuum, especially as a technocratic activity, without adequate regard for the particular conditions, possibilities and constraints of a given cultural and social system (1980: 158).

Then, what is the alternative diagnosis of the failure? In the next section, more attention will be paid to what is outside of the educational system, or society in general.

Alternative Perspective

In contrast to the functionalist perspective discussed earlier, an alternative perspective is based on the premise that schools exist as an agent of the larger social, economic, and political forces.[19] According to this perspective, it is not possible for schools to serve the entire society and to create meaningful social change.

In Schooling in Capitalist America: Educational Reform and the Contraction of Economic Life (1976), Bowles and Gintis express the view that there is a correspondence between the social relations of production and social relations of education. The main role of education, therefore, is the production of an adequate labour force in a hierarchically-stratified and class-stratified production system. Levin (1976) analyzed the function of schooling by what he calls the "correspondence principle." In brief, this principle suggests that the activities and outcomes of the educational sector correspond to those of the society generally. In relation to educational planning, Levin argued that:

> the schools of society serve to reproduce the economic, social and political relations and the only way that school can change those relations is

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[19] See Dreeben (1968), Jackson (1968), and Gintis (1971) for an analysis of these attributes.

> through their unforseen consequences rather than through planned and deliberate change (1976: 4).[20]

Further they argued that the schools will tend to reproduce the existing social inequalities in order to contribute to the legitimation of adult society.

By using this framework, one can look at the various elements of the school and show how they interact. For example, the emerging factory system of the early nineteenth century needed appropriately socialized labour. In a more concrete sense, the functions of schooling contributed to the reproduction and expansion of the production process.[21] Eric Hobsbawn (1969) has noted that the technology behind the Industrial Revolution in England was not so complicated that an ordinary skilled artisan could not have designed it. However, education of the masses came to play a very important role in the industrial labour force in terms of reinforcing factory discipline and teaching respect for authority.

In the remaining part of this section, discussion will be focused on how educational outcomes are produced in line with the ideological and political, the social and economic, and historical and cultural context of developing countries.

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[20] An example of these approaches is the use of time-series or longitudinal designs. See Fagerlind and Saha (1983), pp. 176-77.

[21] See Fagerlind and Saha (1983).

Ideology and Politics

The nature of educational planning has its base in an ideological position which is strongly reflected in the vision of the future held by vision of those in power. Poulantzas (1973) and Weiler (1980) argued that such advantaged groups are not normally interested in sharing their favoured status position with the unfortunate. Nevertheless, educational planners attempt to achieve qualitative changes by modifications brought about through

(1) The laws and budgetary resources available to support education,

(2) The types and quantities of educational resources that are utilized, and

(3) Various aspects of the educational process such as curriculum (Levin, 1980: 23).

Weiler summarized the three sets of factors that tend to intervene in the relationship between the plan and its implementation as

(1) Resource allocation and utilization,
(2) The international dimension of educational development, and
(3) the relationship between bureaucratic and non-bureaucratic structure within a society (1984: 389).

In particular, the political environment of developing countries seems to be quite different from that in the developed countries. As Todaro pointed out, "most developing countries are ruled directly and indirectly by small and powerful elites to a greater extent than are the developed nations" (1977: 24). Effective national development requires, therefore, either that the support of elite groups be enlisted through persuasion or coercion, or that they be pushed aside by more powerful forces.

In Nigeria, political constraints on the success of educational planning arose mainly from the unsettled political conditions in the country resulting in the premature, or forceful, termination of governments. Adesina (1974) identified the following conditions:

(1) Such political instability can lead to termination or postponement of existing external assistance contracts until conditions return to normal.
(2) As political conditions become increasingly strained, they cause significant distortions in the original allocation of the development plan.

Schiefelbein (1975) reviewed the political influences in the Chilean situation and observed the following:

(1) Changes in the curriculum of primary and secondary schools,
(2) Increases in the teachers' salaries,
(3) Promoting university planning,
(4) Allocating school construction, and
(5) Developing an adult literacy campaign.

Socio-Economic Structure

Martin Carnoy (1976) suggested that the "problem of education" is generally not a problem that resides in the educational system, but is largely because of the economic and social structure. In the case of Guyana, Bacchus argued that although

> there were many developments and some changes in the Guyanese educational system between 1945 and 1974, these failed to increase substantially the contribution which education was making to a overall national development. This was, to a large extent, due to the fact that while education reforms were being attempted, the basic colonial, economic, and social structure of Guyanese society had remained relatively intact and was frustrating the success of most of these educational changes (1980: XV).

In an analysis of the inegalitarian nature of educational systems in many less developed countries (LDCS), Todaro stressed that the outcome is not inherently the result of the educational system *per se* but the institutional social structure within which that system must function. Specifically he pointed out the following factors:

> (1) Wage differentials between different educational categories are kept artificially wide in spite of rising levels of educated unemployment.
> (2) Access to jobs is based almost exclusively on educational credentials irrespective of the relationship between years of schooling and job performance.
> (3) A family's income serves as the basic criterion of who is able to proceed up the educational ladder to highly paid jobs (1977: 256).

Coombs (1969), who analyzed the causes and the solutions of the maladjustment between education and educational output and jobs, concluded that "the causes probably lie more outside than inside the educational system" (1969: 22). He further argued that an aggravating factor is the ill-advised educational choices that students and their parents make, based on obsolete assumptions about the job market. However, the problem centers on the following factors:

(1) The structural defects of the economy and job market,
(2) The rigidities in the job classifications and hiring practices,
(3) Distorted wage structures, and
(4) Inefficient mechanisms for allocating and utilizing educated manpower.

These create great disparities between actual demands and needs of the employment market. Among those factors, Bacchus argued that "the most important single factor which was responsible for education, even though supply of educated personnel was already outstripping the demand of the labour market, was the structure of wages in the country" [Guyana] (1980: 251).

Irizarry (1980) used the dependent or dualistic socio-economic structure of the Third World in explaining the contemporary educational problems such as the quest for educational credentials, particularly in the state bureaucracy, rural schooling as a low priority, and redundancy of the tertiary trained manpower. The dependent industrialization, which has its roots in the colonial period, creates few jobs, most of which often exist in urban areas. Consequently, there is a much greater demand to obtain credentials to get in the job market. As a result, enrollments in secondary and higher education are escalated, and the main emphasis is on the humanities, literature, and the arts rather than on technical programs.

Historical and Cultural Legacy

As well as economic dependency, cultural dependency on western education and learning is another problem in education in many Third World countries. Hanf et al. (1975) pointed out that

(1) educational structures and contents,
(2) language,
(3) educational goals, and
(4) unplanned learning process are all based on European or Western ideas.[22]

Similar problems of colonialism were observed by Nyerere in Tanzania.[23] Williamson (1979) indicated that two themes in colonial education needed to be emphasized: polarization between elites and masses, and loss of cultural identity. Remi Clignet (1971) summarized these phenomena as the "caliban[24] complex."

Throughout the Third World, efforts were being made by governments or missions to establish agricultural schools, and provide technical and vocational education. Yet, as was pointed out earlier, nearly all of these experiments were unsuccessful. There are several explanations for this failure. One of them is that "parental expectations about education favour an academic education" (Williamson, 1977: 166). However, the roots of such expectations can be traced to the colonial educational system. During the colonial period in India, academic training was so important because it led to administrative positions in the government bureaucracy.

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[22] Martin Carnoy (1974) called this phenomena *cultural imperialism*. Similarly, Ali Mazrui (1975) described the university as an *analogue* to the multi-national corporation.

[23] Nyerere found four main weakness in the educational system: (1) it was elitist, (2) it divorced children from the real world, (3) it fostered a respect for book learning, and (4) it removed young people from direct productive work (Williamson, 1979: 163).

[24] From Shakespeare's "The Tempest," a beastlike slave.

In this chapter the functionalist perspective on educational limits for national development was discussed. This perspective is limited to educational institutions and their neglect to connect to the larger society. An alternative diagnosis which emphasizes the social structure was introduced and reviewed in terms of ideology and politics, socio-economic structure, and historical and cultural legacy. In the next chapter, the main theme of this paper will be examined with a concrete case of a Third World country--Korea. Chapter III describes the research including the conceptual framework and analytical specifications which guided this study. It also discusses the research methodology for data collection and analysis.

CHAPTER III

RESEARCH FRAMEWORK AND METHODOLOGY

This chapter describes the research framework which includes the conceptual and analytical specifications used in this study. It also describes the research methodology which guided data collection and analysis.

Research Framework

On the basis of the review of the literature, a conceptual framework and analytical specifications were developed for use in this study. The analytical specifications comprised a study of the educational planning, the performance of the educational system and structural constraints which affected the implementation of educational plans. Then a number of specifications about each variable was developed for analytical purposes.

Conceptual Framework

The major concepts in this study are *educational planning* and *national development* in the Korean context. At an abstract and general level, education is here defined as "socially organized transmission and acquisition of knowledge and character formation for the reproduction and/or change of fundamental individual and social functions" (Lofstedt, 1980: 21). Educational planning, then, consists in the continuous rational and scientific approach that the leadership seeks to instill in the educational system in order to bring about the social, cultural and economic development of the country (UNESCO, 1965, 1970). Finally, national development in this study was seen as an overall improvement in the conditions of the masses. In relation to education, it also implies a move towards a more equitable distribution of the means and opportunities by which school knowledge is acquired and applied by the graduates.

As reviewed earlier, based on modernization and human capital theory, education has been assumed as a panacea to remove the backwardness in many developing countries similar to Korea. Due to the levels of their human resource development, the increased awareness of the importance of education in these countries has been a growing interest in formal national educational planning (Saxena, 1979: 4). These countries have adopted social demand and/or a manpower approach as a planning strategy. Generally, economists have shown that there is a high positive correlation between education and economic development, but this high correlation does not necessarily imply a direct causal relationship.

In order to examine the contribution of educational planning in relation to national development in Korea, this study did not assume any causal relation between the two variables. Rather, national development here is an *ideal type* in the Weberian sense. A major concern in this study is to shed light by critical evaluation on the performance of the educational system itself which had aimed at the national development. In other words, the results of the educational system's performance is compared with desired outcomes for national development. In adopting Coombs' suggestion, an examination will be made of each dimension of the educational system's performance in respect to goal/targets and the underlying assumptions as an *ideal type* for national development. In this perspective, one is constantly forced to ask not simply, "How much has the educational system grown?" or "How many more students are enrolled?" but, "How well has it performed?" This is an extremely crucial question for examining education's contribution to national development in this study.

In analyzing the shortcomings of the educational system's performance, the *correspondence* principle is the most important tenet underlying the approach of this study. As Levin (1976) pointed out, this principle shows that "the activities and outcomes of the educational sector correspond to those of the society generally" (p. 26). In other words, education does not function in a social vacuum; it reflects the characteristics of the society which supports it and which it tries to serve. If a society is highly stratified and inegalitarian, and is in reality a *dual* society, the educational system will also follow this *dual model*. As a major corollary of this view, this study maintains that explanations are unsatisfactory, if they are not based on the structural constraints of the society. While no one denies that there has been inadequacy in the educational system itself, especially in developing countries, they are not fundamental causal factors. The real responsibility of the shortcomings of the educational system's performance might rest on the society as a whole, not on any of its sub-systems.

A simplified conceptual framework for educational planning and actual performance of educational systems in relation to national development is presented in Figure I. The related variables of educational plans and the educational system's performance and the structural constraints are specified in the next section.

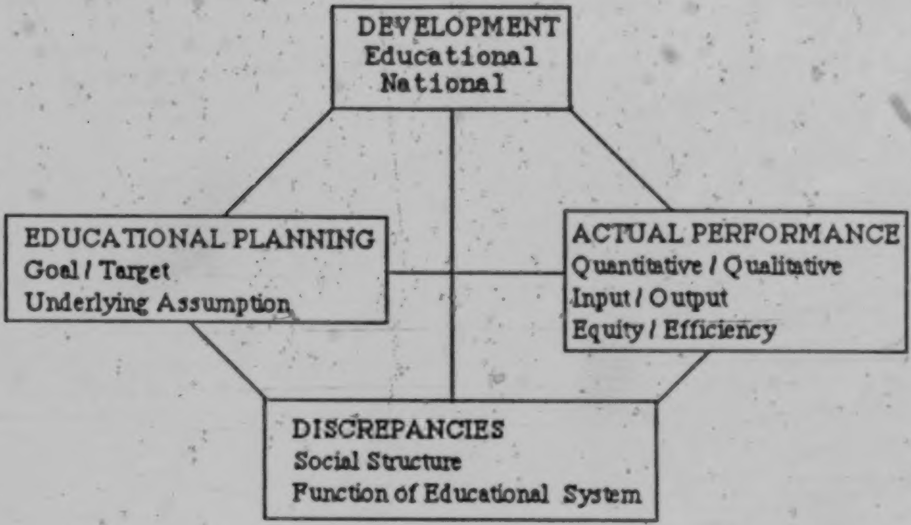
Analytical Specifications

Goal/Targets of Educational Planning

As this study will be considering educational plans within overall development plans, the planning goal/targets and their underlying assumptions need to be clarified. The national development plans are formulated and based on the goals of the nation. Educational plans set forth a series of qualitative of quantitative goal/targets as a basis and stimulus for action. There are also underlying assumptions

FIGURE I

CONCEPTUAL FRAMEWORK OF THE STUDY


DEVELOPMENT
Educational
National
EDUCATIONAL PLANNING
Goal / Target
Underlying Assumption
ACTUAL PERFORMANCE
Quantitative / Qualitative
Input / Output
Equity / Efficiency
DISCREPANCIES
Social Structure
Function of Educational System

of both educational planning and national development, which "have been rarely questioned" (Fagerlind and Saha, 1983: 163). By including these two levels of analysis (goal/targets, and the underlying assumptions), the political and scientific aims of the educational plans will, to some extent, be less obscure and more relevant and realistic.

Accordingly, the following specifications have been developed to examine the first research objective, i.e., "to identify major characteristics such as goal/targets and the underlying assumptions regarding national development projected in the educational plans." Among these are:

(1) The national development plans in general.
(2) Educational planning and national development plans.
(3) The student enrollment projections in educational plans.

Performance of the Educational System[1]

As discussed earlier, the assessment of education's contribution to Korea's national development will be viewed in terms of how far the goal/targets have been met with the underlying assumptions described and reflected in the educational plans, in other words, the extent to which attainment at the levels of educational plans would be evaluated by the observation of the actual results of the educational system's performance.

The second research objective is to examine whether there has been a disparity between specific goal/targets and the underlying assumptions of the educational plans, and the outcomes of their actual educational system's performance. For this purpose, the study focused on the student enrollment projection (the third section of the Chapter IV). In such an exercise, the following indicators of each dimension of the educational system's performance was analyzed:

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[1] See Chapter II, Second Section.

(1) Quantitative/Qualitative aspect,
(2) Input/Output aspect, and
(3) Equity/Effectiveness aspect

Structural Constraints[2]

As we have seen in Chapter II, functional and alternative perspectives represent quite different views on the interpretation of the limitations of educational planning for development. Some of the central themes of each perspective are not in direct contradiction with each other, yet both attempt to explain the same reality. The intention, here, however, is not to fully prove or disprove the content of the both perspectives.

Therefore, for the third research objective of this study, a structural approach has been adopted to explore the factors that made for the disparity between educational planning and the outcomes of the actual performance of the educational system. In this approach, it is necessary to clarify the conditions associated with social structure which might have affected the system's performance. These are the socio-economic and political structures, and the function of educational system.

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[2] See Chapter II, Third Section.

Research Methodology

The study is a historical review and descriptive analysis of educational planning for national development in Korea during the Park regime from 1961 to 1979. For an analytical framework, as has been previously presented, the related literature has been reviewed. In addition to this conceptualization, the relevant data will be collected and reviewed for an analysis of actual problems in the study.

Collection of Data

The main sources of primary data for the analysis of the specified problems were government documents and reports on educational planning and policies, and national development. Basically, the following sources were regarded as relevant through the review of literature.

(1) Five-Year Educational Development Plans, 1961-79. The Ministry of Education, Republic of Korea.

(2) Five-Year Economic Development Plans, 1961-79. Government of the Republic of Korea.

(3) The Statistical Yearbook of Education, 1961-79. The Ministry of Education, Republic of Korea.

(4) Population and Housing Census Report, 1960-1980. The Economic Planning Board, The Republic of Korea.

(5) Annual Report on the Economically Active Populatino, 1961-79. The Economic Planning Board, The Republic of Korea.

(6) Income Survey Report, 1961-79. The Ministry of Labor Affairs, The Republic of Korea.

Besides the government publications, two other types of sources were collected: (1) unofficial Korean documents, publications and references published by educational authorities; and (2) Western and independent sources, where pertinent, used as supporting evidence to throw light upon the development of Korean education.

Most of the data are written in Korean and located in various archives and libraries. Therefore, the researcher visited Korea, his home country, to collect the data. For additional information, some of the relevant secondary sources which are available in the University of Alberta were used.

Analysis of Data

The collected data were analyzed through the following steps:

The first task of this study has been to briefly review overall features of Korea and its educational system in order to understand the general context of the study. Major focus was given to identify (1) national background, (2) historical development of educational system in Korea, and (3) changes of educational planning.

A descriptive analysis of Korea's four five-year national and educational plans from 1961 to 1979 was then performed. The researcher analyzed the major plans and supplementary documents chronologically to identify the specific goal/targets and the underlying assumptions for national development. In analyzing the plans, a special effort was made to identify the major trends and shifts in emphasis.

As a third step, the actual performance of the educational system has been examined by using official documents, and secondary sources. In examining the educational system's performance, the three dimensions on analytical specifications indicated in this chapter were used.

A comparison has been made in order to find out whether the goal/targets and the underlying assumptions conformed to or varied from the results of the actual educational system's performance. For this, the research categorized education into primary, secondary, higher education.

Finally, the reasons for the discrepancies between educational plans and the actual educational system's performance were analyzed. The analysis was based on a model in which the functions of the education system correspond with elements of the social structure of Korean society.

In summary, on the basis of the previously reviewed literature, the study developed a conceptual framework and analytical specifications of the educational plans, educational system's performance, and structural constraints which affected the performance of the educational system. In research methodology, the method of data collection and analysis were discussed. To summarize the research methodology in one sentence, it might be called descriptive, comparative, and interdisciplinary.

CHAPTER FOUR

EDUCATIONAL PLANNING IN KOREA, 1961-79: GOAL/TARGETS AND THE UNDERLYING ASSUMPTIONS

The major purpose of this chapter is to critically analyze what planners and policy makers wanted to achieve in educational planning in Korea from 1961 to 1979. This review constituted the basis for evaluating, in the following chapter, the actual performance of the educational system. In general, educational planning might be considered either as a separate aspect or as part of overall development planning. The focus of this study were on the latter. Given the purpose and focus of this chapter, the following logical steps in the process were pursued: (1) identification of national goals and development objectives, (2) the contribution to national development goals of the educational plans, and (3) projection of the student enrollment. In analyzing each step, focal points are presented to identify the goal/targets of the plans and their underlying assumptions.

National Goals and Development Planning

As in most other developing countries, educational planning in Korea has been undertaken for the purpose of helping with the achievement of overall national development goals. Thus, in order to understand national development planning, it is necessary to examine the assumptions and environment in which educational planning was taking place. The main consideration in this section will be given to analyzing goal/targets and the underlying assumptions of national development plans.

Goal/targets of National Development Planning

Policy Orientation toward National Development

In general, political leaders play a major role in setting the directions and goals of national development for their people. Especially in developing countries like Korea, national development is one of the major concerns of the political leadership. Within the particular context of Korean society with its territorial division, economic conditions and the *civilitary*[1] regime, the political leadership identified three major goals for national development. These were "national security, economic development, and political stability" (C. J. Lee, 1980: 3).

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[1] The term *civilitary* as used here generally connotes military turned into civilian officials whose primary education and training background rested with the professional officer corps.

Although these three goals seem to be connected, it is evident that economic development with an emphasis on economic growth was to be the primary objective. In his autobiographical report, The Country, the Revolution and I (1963), General Park persistently emphasized the importance of economic development:

> I have to re-emphasize that the military revolution was the revolutionization of the national identity . . . of course, this involved innovations in the political, social, and cultural areas, but I (as a leader of the revolution) gave a focal point to the economic revolution.[2]

Under the political leadership of Chung-Hee Park, the national goals were almost the opposite of those suggested by Syng-Man Rhee, the previous president. President Park's national policy orienation has been characterized by such slogans as *National Reconstruction Movement*, *New Community Movement*, and *$1,000 per capita income*, *$10 billion value export*, etc. Under the Rhee government, however, attention had been devoted to political conservatism rather than economic development. Bedeski identified the five elements of political conservatism of the Rhee government as *Anti-Communism*, *Unification*, *Anti-Japanism*, *Pro-Americanism*, and *Democracy* (1983: 3). As has been indicated above, Park's administration shifted from Rhee's national policy orientation and focused on economic development for national modernization.

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[2] Chung-Hee Park, Kukkawa Hyukmyungkwa Na (The Nation, Revolution and I), Seoul: Hyangmoonsa, 1963, p. 259, quoted in J. E. Kim (1973) pp. 92-93.

This shift is quite understandable when we consider the economic situation of Korea in the beginning of the 1960s. At that time, economic conditions in South Korea were little different from those prevailing in any resource-poor, low-income countries of today. South Korea, already over-populated, was experiencing an annual population growth of nearly three percent. Per capita GNP at current prices was a meagre $82, permitting a negligible rate of domestic savings. The nation had no significant exports and had run chronic balance of payments deficits since liberation in 1945. In 1961, for example, the country's exports amounted to less than one-quarter of its imports (McGinn et al., 1980).

Focus on Economic Development Planning

Under the then prevailing economic conditions, General Park's national development policy orientation resulted in the establishment of a powerful planning agency, the Economic Planning Board (EPB), in June, 1961. A month later, the EPB was created as a Ministry.[3] Its role and functions have been more powerful since 1963, when it was decided that the Deputy Prime Minister was to be the Minister of the EPB.[4]

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[3] Law No. 660 (July 22, 1961).

In July, 1961, the EPB was ordered to draw up new development plans within a framework given by the Supreme Council of National Reconstruction. The EPB formulated the First Five-Year Plan by November, 1961. The Five-Year Plan (1962-66) adopted a goal that allowed for the "correction of all socio-economic vicious circles and set the foundation of a self-relianct economy" through the following measures:

(1) Expansion of adequate energy resources, especially electricity and coal;

(2) Raising the farm income through the expansion of agricultural production and correction of the structure of the national economy;

(3) Providing adequate social overhead capital such as railway and ports;

(4) Building major industries such as cement, fertilizer, oil refining, and steel mills;

(5) Maximum use of available resources, especially improvement of employment and development of land;

(6) Improvement of the balance of payments for export maximization;

(7) Promotion of technology in order to provide a basis for a "take off" toward sustained growth.

As clearly seen in the goal/targets adopted in the First Five-Year Plan, it was the modern sector of the economy that was to spearhead national development. The model of development adopted was based on an export-oriented and rapid industrialization strategy. First, through outward-looking industrialization, the Korean economy was to become deeply integrated with the world capitalist system. In turn, any significant change in the internal structure of the economy was also geared closely to the world economic system. Secondly, the development strategy, prescribed that the base for an autonomous and dynamic industrial development be established. This required the formation of heavy industry to process raw material steel mills, oil refineries, and so on. In other words, on this industrial base an integrated network of complementary production activities was to be developed.

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[4] Law No. 1506 (December 14, 1963).

The basic strategy of export-oriented industrialization was continued under the subsequent Second (1967-71), Third (1972-76), and Fourth (1977-81) Five-Year Economic Plans. One of the outcomes was uneven economic development which resulted in uneven spatial distribution of both the population and the industrial structure. Rapid urbanization since the 1960s was directly related to the sectoral dualism in the economy, and the urban/rural population pattern changed radically.

Other Aspects of Development Neglected

The lopsided emphasis on economic growth during this period caused imbalances in development, especially with respect to political, social, and cultural development. Korean policy makers and national development planners have been obsessed by economic growth. Development planning, therefore, was largely economic planning with little concern for equity, justice, welfare or other non-economic factors. With their zeal and commitment to rapid economic development, the planners had forgotten the simple truth that the individual happiness or *quality of life* is determined not only by material conditions, but also by the way individual life is organized by larger social forces (i.e., social structure). General Chung-Hee Park, who was preoccupied with the *economic revolution*, said that expulsion of want and poverty is the first step toward building a better nation. Unless the people were relieved from their perennial economic plight, he believed that democracy is a species of social luxury, at best a precarious venture" (Park, 1963).

Political development was especially excluded from the economy-oriented national development planning policies. As indicated earlier, the governing elite had clearly considered political stability to be essential to economic growth. However, this political stability was not developed by democratic means, such as by the formation of opposition groups that could participate in the governance of the country. Rather, it has been promoted in part, through the following political restrictions: (1) the denial of human rights; (2) suppression of representative institutions; (3) severe limitations on political expression; (4) the complete abrogation of industrial rights; and (5) the strengthening of strong controls in the hands of military and civil bureaucrats (Caiden and Jung, 1981: 301). These kinds of political restrictions can be most clearly seen under the amendments of the *Yushin Constitution* in 1972. Under the Constitution, basic human rights and freedoms were subject to restriction when necessary in order to maintain public order, public welfare or national security according to emergency decree.

The Underlying Assumptions of National Development

Trickle-Down Effects of Development

As was discussed earlier, the policy makers and national development planners concentrated entirely upon economic development with special focus upon a *growth-first-distribution-later* policy. The underlying assumption was that increases in output and industrialization would eventually be more widely distributed and improve the quality of life in general. It seemed pointless to worry about the distribution of wealth until there was something that would lead to improved conditions for everyone, according to the anticipated *trickle-down* theory. In any event, capital formation and a high rate of domestic investment and savings necessitated initial inequalities which would have to be borne for the time being. It was felt such sacrifices would eventually pay off.

Further, the diffusion model of development planning is analogous to Lipset's social and economic requisites thesis (Lipset, 1963). Economic development would lead to urbanization, literacy, advanced communication and transportation networks, and increasingly differentiated interest groups. In turn, the groups would lead to democratic political development measured by high levels of political institutionalization. A report of the Korea Development Institute, *Korea Year 2000: Prospects and Issues for Long Term Development* (1986) summarized the underlying assumptions of economic development in the 1960s and 1970s in the following way:

> This single-minded emphasis on economic development during this period was an expression of a naive belief . . . that once the nation frees itself from poverty, political, social, and cultural development would automatically follow (p. 5).

As the report pointed out, the national development planners naively thought that economic growth would guarantee equal distribution and further transmit its effects to other sectors and lead to their development. First of all, there was no clear appreciation of the role of class in Korean society. To the national development planners, society was understood to be based on a functionalist paradigm. It was seen as being populated by somewhat homogeneous groups, with common interests, who had no need to compete actively with each other for scarce resources. Although it was recognized there were some kinds of conflicts among the groups, it was felt that the liberal government could intervene at any time to overcome such conflicts. Based on this view of society, the national development planners were silent about the unequal relationship of the social groups at the international and national level.

At the international level, for example, there was obviously an inegalitarian economic order which resulted in the exploitation of the developing countries by the developed ones. At the national level, there were also inequities in the distribution of property, and unequal sharing of social status, political power, and cultural rewards. These are the basic problems of social class which must be addressed and resolved in most developing countries like Korea. Unfortunately, however, these were not highlighted, at least in planning papers.

Before going further, it must be noted that Korean society was always characterized by a substanital degree of inequality in the distribution of wealth, power, and status. However, before this society entered the development decade of the 1960s, Korean society was comprised of a very loose and fluid structure. In other words, the inequality was not systematically and permanently tied to particular positions in the social structure. The traditional Korean class system had been completely destroyed by Japanese colonial policy, the post-liberation land reform, and the Korean War. A new class system had yet to appear at the beginning of the 1960s. But with the radical transformation, this loose and fluid system system of inequality gave way to a more structured system of inequality grounded upon capitalist relations of production in the newly industrializing economy.

Returning to the major issue of the underlying assumptions of development planning, a question is again being raised about *the diffusion model* of development planning used in Korea. According to this model, development largely takes place in industrialized, modern sectors, and diffuses to the traditional sectors. This *dual society* concept promotes isolation and separation of the sectors and obscures the underlying relationships between the two sectors in the process of development. These approaches, therefore, have served as convenient ideological justification for modernization, since underdevelopment is viewed as a result of traditionalism. However, "modernity is not a geographical question, but a class question" as James Petras (1968: 161) reminds us.[5]

In a similar way, it is a questionable assumption as to whether economic growth can be the only important factor to lead other aspects of national development such as cultural and socio-political development. As Michael Todaro (1977) defined it, development is a multidimensional process and, in essence, must represent the entire gamut of change of the social system. Based on these grounds, the almost exclusive concern given to economic growth cannot be justified if this means the repression of any opposition to the ruling group in order to maintain political stability in the short run. In the case of Korea, therefore, political stability could be better understood as a necessary condition not only for economic development but also for the purpose of legitimization, which will be discussed later.

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[5] Traditionalism and modernity vary according to the levels of the socioeconomic system. For example, one can discover modernity at the technological level and yet discover traditionalism at the level of social relations (worker-owner).

A Liberal View of the Political Regime

Another underlying assumption rests on a liberal view of the government, which was that political institutions are simply taken to be the aggregation of various interests in society. According to this perspective, the competition between *veto-groups* was sanctioned and guaranteed by the regime in order to ensure a *balance of power*. Implicitly, the view was that the regime was a neutral instrument, mediating between particular competing interests in the *national interest*. Hence, the task of political elites in Korea was to develop political institutions of substantial complexity and autonomy sufficient to withstand the inevitable buffeting that occurs, especially under the conditions of rapid socio-economic change.

Based on the development planners' liberal view of the regime, there were few doubts that development could be planned, directed or controlled in some way by the regime. The whole complex ideology of planning and its manifestations in Korea, like many other developing countries, was thus essentially rationalist in approach and interventionist in practice. It is committed to the belief that development can be brought about and accelerated by government intervention. Economic conditions, in particular, need not remain merely a consequence of *natural forces*. Instead, it is felt that these conditions and their evolution should be under the government's control so that the economic system can be moved in a desired direction. Hence, the government became the main motor of development planning and implementation, and got the label of the "hard state" of South Korea under President Chung-Hee Park (Jones and Sakong, 1981: 132).

However, even the most cursory reading of the history of societies does not suggest the governments as independent and egalitarian (Miliband, 1969). Especially in Korea, as Wade and Kim argued, "the Korean polity of the military and the government of the Third Republic continues to face serious questions of legitimacy and authority" (1978: 25). Therefore, the state bureaucracy and government had their own needs for legitimacy and could not operate national development planning effectively based on democratic values. In short, because of their need for legitimacy, democratization as a development value had been replaced solely by economic growth to ensure capital accumulation.

But, why has the political regime brought such legitimization problems and chosen economic development to relieve the problems? There are numerous reasons. The 1961 military junta had much difficulty in establishing its legitimacy because few of its members could boast a sound educational or even a *good* family background. In addition, there was a Confucian legacy in the society that denounced military power and thus worked against the government. Past associations with the Japanese army were also disadvantageous (Chang-Soo Lee, 1981: Chapter 3; Bedeski, 1983: 14).

In spite of the importance of these factors in terms of background, cultural legacy and past careers, the more fundamental problems of legitimacy came directly from the nature of the military *coup d'état* itself. The political legitimacy of the Third Republic could not effectively be based on democratic values because a military revolution, by definition, is an unusual means of holding political power from the standpoint of democratic ideals. One of the compelling reasons behind the military involvement in politics and development was that there was a great deal of frustration about the economic policy of the former Rhee regime. In this connection Chung-Hee Park, in justifying the military *coup d'état* before the presidential election of 1963, reiterated some familiar points of criticism directed at the Rhee regime. These included

(1) The large amount of foreign aid was "frittered away",
(2) The overemphasis on consumer goods,
(3) The depressing effect of aid-financed agricultural imports on domestic agriculture,
(4) The heavy dependence of the budget on aid receipts,
(5) The inefficient management of state run enterprises, and
(6) The lack of long-range planning (Park, 1963: 19-43).

The leaders of a military *coup d'état* in developing countries like Korea often identify themselves as nationalists and tend to focus on the quality of national existence. Their vision is economic equality with the economically more advanced nations of the world. While most recognize the impossibility of achieving that aim in the near future, movement in this direction was seen as only possible through this autocratic development process.

There are also several other reasons why the military regime favored economic development as a focus of concern and major goal of national policy. First, the key personnel of the regime were mostly trained in the military organization which, due to the influence of the United States, is one of the most modernized institutions in Korea in terms of administrative efficiency. Second, their military careers were, by nature, more likely to be committed to instrumental values such as economic growth rather than to values such as democracy. Third, the military leaders had greater concern about the communist regime in the North, and thus paid much attention to economic competition between South and North Korea. Indeed, these military men asserted that within the context of the present world situation, only the military was capable of effectively instituting major social change processes.

National Development Goals and Educational Planning

Educational planning that includes allocation of resources to the education sector is linked first to the procedures used in general development planning. Therefore, educational planning reflects the goal/targets and the underlying assumptions of the overall national development plans. The evidence available demonstrates that adjustments are made in educational policies in order to maximize the contribution of the educational system to national development. From this perspective, the key points of analysis in this section are a combined analysis of national development goals and educational planning in Korea. In analyzing the relationship between the two, emphasis is placed on the major goal/targets and the underlying assumptions.

Goal/Targets of Educational Planning for National Development

Policy Orientation of Educational Planning toward National Development Goals

The orientation of the political leadership toward national development resulted in a specific Korean pattern of development, which has shaped the role of education for development in the country. As in many other developing countries, education in Korea was seen as something more than an individual consumer's concern: "education is only one important strategy for long-range planning of national development" (Lee, nd: 3). Education was viewed and emphasized as a means of national development and its functions were specified in terms of the stated national goals of national security, economic development and political stability.

This view of education coincided with the personal views of the political leader of the country. On January 5, 1962, General Park, leader of the ruling military junta, announced his view on education as follows:

> In keeping with the requirements of this era of construction, our education system will be renovated and our educational policy readjusted, so as to inspire all with the national spirit and to increase technical education.[6]

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[6] "Park pledges anew, clarifies '62 policies," Korean Report, Vol. 2, No. 1, February, 1962, p. 5.

After the accomplishment of the First Five-Year Economic Development Plan, President Park reaffirmed the importance of the *second economy*, or internalized support for economic development. It has been said that this relatively unfamiliar term was originally coined by President Park himself. In a presidential lecture presented to the Economic Planning Board (November 16, 1967), the President defined the *second economy* and clarified its relationship to the first economy in the following manner:

> If we categorize the *first economy* which include material production, it may be called the *second economy* which consists of spiritual foundations such as people's voluntary support of national policy and modernization.

In his New Year's message (January 15, 1968), President Park reiterated the concept in more detail:

> The *second economy* is not any academic term and it may be changed into another one if is not appropriate. The term only means that it is necessary to put effort into not only visible and material things but also invisible spiritual things in order to reconstruct our economy more efficiently. As we know, the fundamental purpose of our nation is to modernize our country . . . then the modernization cannot be accomplished only through economic development. We need nationwide movement of democracy, industrialization, cooperation and scientification in all aspects of our daily life. Through this strenuous movement, we can achieve the goal of modernization.

The emphasis of the role of education for national development in Park's government may be compared to that in the former Rhee government. If one takes the public statements of these two presidents as an indicator of public policy in education, there were substantial differences between them. According to Jin-Eun Kim's survey, during an equivalent time period, Park mentioned education 30 times compared to Rhee's 19 times in major addresses. This seems to indicate that education was a greater concern for Park's government than for Rhee's. Table II provides a breakdown of the policy orientations by the ministers of education of the two regimes. Under Rhee, Ministers of Education were concerned with individual knowledge and moral development, and especially, anti-communist education. In contrast, Park's government "gave first priority for education to exemplify socio-economic development, with concentration on educational productivity and technical education" (J.E. Kim, 1973: 107).

TABLE II

EDUCATIONAL POLICY ORIENTATIONS BY THE MINISTERS OF EDUCATION DURING THE RHEE AND PARK GOVERNMENTS

	Rhee		Park	
Policy Orientation	Number of Cases	Rank	Number of Cases	Rank
National Defense and Spirit	7	1	6	2
Educational Quality	4	2	3	6
Individual Development	3	3	5	3
Socio-Economic Development	2	4.5	8	1
Administrative Improvement	1	4.5	4	4.5
Cultural Development	2	6	4	4.5
Total	19		30	

Source: Adapted from Jin-Eun Kim (1973: 108).

In Korea, as in the case of many developing countries, educational planning and policy development became popular.

The most comprehensive effort was made in the Report of the National Council for Long-Term Comprehensive Educational Planning (CLCEP) under the chairmanship of the Prime Minister in 1971. The Report of the Council considered in great depth almost every aspect of Korean education at every stage, and made a series of recommendations for the educational development of the country. It is clear from the deliberations of the Council that there was a general awareness of the crucial importance of educational development for the country's socio-economic progress. For instance, the Long-Term Comprehensive Educational Plan opened with the following preamble:

> Education is the major policy instrument in achieving national development as well as a process in realizing the individual's potentiality . . . [Especially] in contemporary states, education is regarded as the key to opening the door of modernization of the country, in realizing that the efficient and productive management of the educational system can contribute to national development goals such as political integration, economic development and cultural improvement.[7]

Accordingly, CLCEP set the following objectives of educational planning for national development:

(1) Improvement of the internal efficiency of the educational system by modernizing the instructional content and method,

(2) Improvement of external educational productivity by matching the manpower demand and supply,

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[7] The Long-Term Comprehensive Educational Plan: 1972-86 (Seoul: National Council for Long-Term Comprehensive Educational Planning, Republic of Korea, 1970), p.5.

(3) Enhancement of efficiency in support systems such as educational administration and finance, and

(4) Emphasis on improving the planning techniques of "planning education."[8]

Educational Planning for Economic Development

As discussed in an earlier section, the policy makers and national planners focused their attention on economic development and assumed that education is the major determinant of economic growth. The bureaucrats depended, to a large extent, on manpower planning to meet the economic needs of the society. Political leaders and national development planners, especially in the early sixties, viewed educational planning as a part of manpower planning for economic development. The Five-Year Educational Development Plan (1962-66) began its first chapter by criticizing the state of Korean education and emphasized the need to regulate the rapid increases in overall enrollments in school if economic growth was to be effectively achieved:

> Korea has adopted and developed a democratic system on the assumption that realization of a democratic society is possible through equal educational opportunity. This equal educational opportunity has been adopted as a major policy of the government . . . . However, liberation from Japanese colonial rule has brought over-heated educational need, which resulted in establishing the schools like "mushrooms after rain . . ." Education is an outcome of social (national) need

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[8] Ibid., p. 4.

> and the type of education is also a by product of it. Since social (national) needs derive from social strata and ideals, education cannot be separated from them. Nevertheless, Korean education turned its face away from the social reality or ideal and has been relied on to satisfy the people's perceived needs which may be called "over-heated education fever" and continued to expand ridiculously.[9]

It is fair to state that some of the leading educational scholars who had participated in educational planning also criticized the situation of the economic development-oriented educational planning, and supported a more comprehensive approach of educational planning. Unlike previous educational planning, this more comprehensive concept of educational planning was clearly revealed in the Long-Term Comprehensive Educational Plan from 1972 to 1986. This Report emphasized that national development included various aspects such as political, economical, cultural and educational development, and found out that their functions were related to each other in a comprehensive and dynamic structure.[10] However educational planning was not coordinated with other national development planning and therefore, it was largely unrealized. It remained and continues to be a part of economic development planning.

The question which next arises is what major programs were considered in educational planning for national development, especially with the over riding concern for economic development planning. For this purpose, educational planning in Korea has focused on vocational education. Vocational education appeared as a panacea for meeting the needs for qualified manpower, since it was directly linked to economic development. Let us now closely look at major policies of vocational education at each educational level.

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[9] "The Five-Year Educational Development Plan: 1962-66" in Educational Policies of the Military Government (Seoul: Government of the Republic of Korea, 1961), p. 123.

[10] Ibid., pp. 5-6.

Even though the instruction which the students received in primary schools seldom had an explicit vocational orientation, the possibilities for emphasizing vocational and academic themes were always present. Educational planners in Korea believed that primary schools could make significant contributions to vocational competence through the opportunities and experiences provided younger children. Among the educational plans during Park's regime, The Five-Year Educational Development Plan most clearly envisaged the policies of vocational education at the primary school level. It was called "production education" and its major policies were summarized in the Five-Year Educational Plan (1962-66) in the following ways:

> (1) According to the Decree of the Class Hours Allotment of Primary, Middle and High School[11], the Practical Course, as a required subject, should be offered 7-10 hours per week at the 4th, 5th, and 6th year of elementary school curriculum.
>
> (2) In consideration of the situation in the elementary schools which did not allow the

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[11] Decree of Ministry of Education No. 35 (April 20, 1954).

country to give vocational teachers involved a production education full time responsibly for one class, it was necessary to employ those teachers with a vocational education and then gradually increase their numbers.

(3) The facilities for production education were to be gradually provided from the existing educational budget, at least, at the minimum level.

(4) The strengthening of community and production education, through the growth of national products, was to contribute to the reconstruction of the nation which was under the poverty line[12].

Vocational education in secondary high schools in Korea has been designed to meet the specific needs for craftsmen and this has been continually emphasized throughout the educational plans. The problems analyzed in the First Five-Year Educational Development Plan, for example, were that students in the vocational programs often demanded and received similar instruction to those students of academic high school; decrease of enrollments; low rates of employment; lack of facilities; lack of creativity and enthusiasm; and lack of practical experiences. Based on this analysis, the Plan recommended the increase of enrollments and also announced some of the measures that would be taken to improve the quality of vocational education. These were as follows:

(1) In order to provide a legal basis for development of vocational education, it was considered necessary to establish the Vocational Education Promotion Act in 1962.

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[12] The Five-Year Educational Development Plan: 1962-66, op. cit., pp. 197-98.

(2) In improving the classroom and equipment, priority was to be given to the urgent needs based on manpower demand and supply in the First Five-Year Economic Development Plan.

(3) In consideration of efficiency, the small-sized and ill-equipped vocational schools were to be reorganized. The academic high schools were also encouraged to change to comprehensive high schools and to strengthen vocational training programs.

(4) In order to obtain qualified vocational teachers, it was suggested that their salaries be raised and they be provided with opportunities for upgrading their qualifications.

Apart from these measures, the Plan announced several other measures for strengthening vocational education. They included vocational guidance, revision of curriculum[13], exemption from tuition fees, and increase in scholarship supply for students taking vocational education[14].

The basic strategy of strengthening vocational education programs in terms of quantity and quality continued under the Five-Year Educational Development Plan (1962-66) and the Secondary Educational Development Plan. In particular, the Five-Year plan for Secondary Education (1967-71) advised that new schools be permitted only if established as vocational schools. The Plan proposed to increase tuition fees for the academic high schools and decrease them for the vocational high schools.[15].

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[13] The proportion of Practicum among the total subject hours was supposed to increase from 30 percent to 60 percent.

[14] *Ibid.*, pp. 317-34.

At the university stage, a determined effort was made in all educational plans to restrict enrollment. However, the First Five-Year Economic Development Plan (1962-66) stressed development of five-year professional colleges beyond the middle school. Also, there was a recommendation that liberal arts colleges be reorganized for vocational and technical education purposes. In similar ways, The Educational Sector Plan of the Fourth Economic Development Plan (1977-81) suggested that junior technical colleges were to expand as demand for technically qualified persons in industry increased.

The most serious bottlenecks for high quality vocational education in Korea were, as in many other developing countries, a lack of qualified experienced teachers and adequate facilities for training them. In order to overcome these problems, cooperative vocational education programs were suggested at the secondary and post-secondary education level, particularly in the technical high schools and junior technical colleges. The Long-Term Comprehensive Educational Plan (1972-86) summarized the importance of this field of study as follows:

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[15] The Five-Year Plan for Secondary Education: 1967-71 (Seoul: Ministry of Education, Republic of Korea, 1966), pp. 37-38.

> The Cooperative Vocational Program is necessary to prevent misunderstanding and indifference between the education and the industry sector. The areas of mutual concern include: curriculum operation, use of teaching staff and facilities, student's employment after graduation, financial support to students and research activities[16].

Educational Planning for Ideological Development

Paralleling the emphasis on economic development, educational planning in Korea also put a great deal of effort toward another national goal, i.e., ideological development. From the beginning of the national liberation effort, Korea has had to struggle with a colonial legacy, a painful division of the country, and a need for national reconstruction. In consideration of these circumstances, a program of *ideological education*[17] or *spiritual education* was formulated and directed by the government. A commitment to national solidarity became the means for developing ideological foundations and moral consciousness.

The Educational Sector Plan of the Fourth Five-Year Economic Development Plan (1977-81) most clearly described the direction of ideological education. According to this Plan, the need for ideological education was as follows:

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[16] The Long-Term Comprehensive Educational Plan: 1972-86, op. cit., p. 536.

[17] The ideological education mentioned was to be connective, and to incorporate value education, moral education, ideological issues and spiritual rearmament, etc.

> The political structure will pave the way toward the Koreanized democracy based on Yushin (reformed) ideology. However, it is expected there will be continuous threats from North Korea, and at the same time, a need to expand national power and to meet the dynamic situation of international politics. Therefore, ideological education should be strengthened to build national identity and democratic anti-communism[18].

Further, in describing educational ideals and objectives, the Plan stated:

> [Korean education] will pursue democratic anti-communism by systematizing ideological education, development-oriented personal character education based on the New Community Movement, and moral education for fortifying national ethics[19].

As seen above, many concepts were included in education for ideological development in Korea. However, two themes have emerged as focal points of emphasis. They were anti-communist education for national security and education for socio-political stability. In general, the first theme was clearly indicated in the educational policies and a free school curriculum; however, the latter theme was expressed in indirect and subtle ways such as morals, ethics and patriotism, etc. These two concepts in Korea, however, were so closely integrated and it is difficult to separate one from the other. If we examine the objectives of the National

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[18] The Educational Sector Plan of the Fourth Five-Year Economic Development Plan: 1977-81 (Seoul: Korean Educational Development Institute, 1976), pp. 2-3.

[19] Ibid., p. 4.

Ethics[20] subject in the formal curriculum, for example, we can identify how intimately related they are. According to the annual report of the Ministry of Education for 1977, the objectives of the National Ethics were as follows:

> (1) to develop in pupils the attitude toward the right ways of living as democratic citizens;
>
> (2) to develop a sense of responsibility for services to the society, the nation and the world;
>
> (3) to enhance awareness of the glorious cultural heritage handed down by ancestors and to stimulate motivation in dedicated pupils for the cause of national development;
>
> (4) to nurture patriotism and strengthen determination for safeguarding democracy against communism; and
>
> (5) to develop a desirable national outlook that would heighten awareness of the importance of national security[21].

Ideological education, basically comprising anti-communism and moral or ethical education, was not confined to classroom work, but was also conducted through military training. In Korea there were three types of military training in 1969, when it first introduced a R.O.T.C. system for four year college students and an R.N.T.C. system for junior teachers' college students; general military training for all male students beyond high school levels; and Homeland

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[20] National Ethics is taught in all levels of schools in Korea. Especially, the subject is a required course for all college freshmen.

[21] Ministry of Education, Education in Korea (Seoul: Ministry of Education, Republic of Korea, 1974), p. 28.

Reserve Forces training for those students who had fulfilled their military obligations[22]. In 1971 a revision of the training scheme was made, and the three training activities were unified. Such military training also afforded opportunities for anti-communist and moral education.

The entire student population from high school to university also was militarily regimented through the National Student Defense Corps. Through this regimentation, the student body was organized hierarchically from top to bottom. According to the Ministry of Education, the objectives of the Corps are to aid the students to understand the needs and problems of their own country, and to promote and administer student government and student activities.

As in the case of military training, this mechanism of social control extended to the governing student body. The Educational Development Plan (1972-76) concluded that the "student government of the colleges has been in political turmoil" and recommended the following policies:

> (1) To form spontaneous groups in the colleges and to provide financial support according to the ratio of student participation when they are going to have moral training activity.
>
> (2) In order to support the healthy student movement, it was suggested to the colleges that they support the financial cost of the student groups which participate in tours, arts and athletics.

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[22] Ministry of Education, Education in Korea (Seoul: Ministry of Education, Republic of Korea, 1972) p. 11.

(3) A professor as a supervisor should be involved in any *circle*[23] of activities of the student outside the classroom situation.

(4) The self-governing activities of students in the colleges, based on the principle mentioned above, should not exceed the designated circle of activities to create an enjoyable experience. The supervisors also have responsibility to limit their instruction toward this direction.[24]

In order to strengthen the ideological education mentioned above, special efforts have been made in educational planning. This necessarily entailed the revision of the content and method of teacher training and increasing the supply of special resource material. For instance, the Educational Sector Plan of the Fourth Five-Year Economic Development Plan (1977-81) announced the following major policies:

(1) Ideological education will be systematized in order to strengthen the horizontal linkage of goals and content of the textbooks such as National Ethics and Moral Education. The focus of revision will be on Anti-communism Yushin (reformed) ideology.

(2) The teacher training system will be established according to the education level of the students. The secondary school teachers in charge of anti-communism will be trained through the short-term training institutes, inservice training and established departments. In the case of higher education institutions, the teaching staff will be assigned to anti-communism research subjects

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[23] In Korea, *circle* means university club or interest group of students.

[24] Educational Development Plan: 1972-76 (Seoul: Korean Educational Development Institute) pp. 73-74.

for two to three years and provided with overseas training.

(3) The resource materials for ideological education will be developed based on empirical data rather than simple propaganda material[25].

The Underlying Assumptions of Educational Planning for National Development

Instrumentalism and Economic Development

As discussed earlier, the policy makers and educational planners in Korea believed that education was a major instrument for national development. This belief was based on the underlying assumption that education serves more than one purpose, and made its most effective contribution to the whole society. Education was expected to play a vital role by initiating the desired process of national development. Based on the assumption, a radical reconstruction of the educational system has been a persistent theme in educational planning in Korea, especially during Park's regime.

The planner's instrumental view of education had two weaknesses from a philosophical and a sociological perspective. From the philosophical point of view, the focus of education was shifted from its *intrinsic* value to an *extrinsic* one. B. M. Chung called this an "inversion of values," and described an example of instrumentalism in the following ways:

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[25] Educational Sector Plan of the Fourth Five-Year Economic Development Plan: 1977-81, op. cit., pp. 8-11.

> Learning mathematics has no value, no meaning, no intrinsic interest for preparing for the college entrance examination. College life is a means of getting a job; a job is a means of getting richer. When a life from birth to death is seen strictly from such an instrumental point of view, it totals up to having no value, no meaning of its own (1981: 14).

In fact, a recent survey, Social Construction of Schooling: Dominant Patterns and Conflicts conducted by C. J. Lee (1980), showed that there were two major sources of competing philosophies on schooling in Korea. They were the development-oriented, government-sponsored image of schooling, and an individualistic image of schooling that acted as a gatekeeper and prepared students to move into a higher socio-economic stratum. Within these conflicting images of schooling, the image of education as being of intrinsic value and which involved such features as self-actualization seemed to play very little role when educational opportunities were being pursued. In other words, the primary concern in Korea was with an extrinsic rather than intrinsic value of education.

From the sociological point of view, the position taken by the policy makers on the role of education in social change or national development was not fully tenable. As indicated earlier, the view of planners was that a radical restructuring of the education program and the educational system set in motion corresponding socio-economic changes and that education was a prime mover for this purpose. This argument seems to be theoretically incorrect. As Carnoy (1980) and Bacchus (1980) pointed out, education in general and schooling in particular cannot achieve the desired societal goals without additional structural changes.

The educational planning in Korea also ignored the basic fact that the dominant groups within the existing class system will not allow any radical restructuring of education to take place which is contrary to their interest. Based on these general factors, it is necessary to reconsider what the rationale of the underlying assumptions of educational planning for national development really was. This rationale has been traditionally accepted in Korea for years.

As indicated earlier, the initiative for educational planning was taken by the Economic Development Planning Division in Korea. Therefore, the instrumental view of education for economic development was more prevalent than in most other areas of development. As a result, "Shultz's study, the results of Denison's growth-accounting approach and many international comparisons on rate the of return to investment in education were well introduced to Korean society" (C.J. Lee, 1980: 4-5). This economic approach to education led the educational planners to pursue more material outcomes and narrow-minded efficiency in educational investment. More attention was therefore paid to immediate and visible "pay-off" values rather than to intrinsic values of schooling.

The underlying assumption of educational planning for economic development was based on the individual modernity perspective. Fagerlind and Saha summarized this view of education, suggesting that there would be a direct causal link among five sets of variables: "modernizing institutions--modern values--modern behavior--modern society--economic development" (1983: 16). It is, therefore, not surprising that the educational planners have placed such importance on modern attitudes and values. According to the Long-Term Comprehensive Educational Plan (1972-86), for example, the following three major personal characteristics needed to be developed among those being educated:

(1) Positivism -- a pioneering attitude, creativity, innovation, achievement motivation and entrepreneurship, etc.

(2) Universalism -- subjectivity, cooperation, openness, citizenship and justice etc.

(3) Rationalism -- science, quest and substance.

It is not necessary to mention the many problems involved in the individual modernity view because those seem to be very well illustrated elsewhere (See, Portes, 1973; Bernstein, 1971). This particular study, however, is concerned with the causal linkage between the variables as indicated earlier. In particular, it is questionable whether modern values and modern behavior by individuals necessarily leads to economic development at the societal level. As Portes (1973) and others indicated, this causal linkage does not necessarily hold because of the class structure of society, which often intervenes to disturb this relationship. This point will become clearer as we look at the function of vocational schools in Korea.

As has been discussed, vocational education was greatly emphasized in educational planning in Korea, as in many other developing countries. The underlying assumption was that the vocational schools provided a direct linkage in skills and knowledge for national production. Therefore, the assumption that there would be a direct link between education and economic return on educational investment. Certainly, the vocational schools can produce individuals with occupational skills; however, the school is not the only agency for this purpose. Extension education, on-the-job training in industrial concerns, apprenticeship programs, and other out-of-school arrangements also provide out-of-school skill training.

Furthermore, the national leaders and educational planners in Korea failed to recognize that the attractiveness of any sector of the educational system was a direct reflection of the reward structure generally available to those who followed such educational programs. Vocational schools can attract students only if the incentives they offer or the rewards they promise are sufficiently attractive. As long as the academic schools are the path to the universities and prestige positions, good students are not likely to choose vocational education. In fact, a report published by the Ministry of Education, Education in Korea (1960), indicated the unpopularity of vocational schools by noting that

> Neither parents nor students have yet generally accepted the concept that a vocational school carries as much prestige as an academic school; therefore, students still throng to the academic institutions (p. 48).

Based on this brief analysis, the instrumental view of education for national development, especially economic development in Korea should be considered to be of limited value. It does not mean that education cannot contribute to economic development. Rather, economic development is only one objective of education. Social, political, cultural and human development are of no less importance. As it happens, all these objectives influence one another. They are aspects of the same society sharing the same reality, and to isolate them would be arbitrary. From this perspective, educational planning should no longer be prepared and directed as if its only objective was economic development.

Functionalism and Sociopolitical Stability

Another underlying assumption was that the educational planners and policy makers in Korea assumed that education would play a *functional* role in national development. They seldom paid much attention to the dysfunctional consequences of education for development or national development. In the context of government initiated and sponsored development processes, the functional role of education was taken for granted. The extreme situation may be found in curriculum development, particularly in vocational education for economic development, and ideological education for socio-political security. The perceived role of education in these areas of curriculum development was based on the functionalist view of schooling.

The underlying assumption of functionalist education, however, may be qualified by saying that education is a double-edged tool; while a *wrong* type of education might lead to underdevelopment, the *right* kind of education could bring about effective national development. Of course, the educational planners in Korea acknowledged the dysfunctionality caused by education geared solely towards national development. In the Long-Term Comprehensive Educational Plan (1972-86), for example, the educational planners identified the possibility of the dysfunctional role of education by stating that "the relationship [between education and national development] is not always functional, but sometimes dysfunctional."[26] The educational planners in Korea viewed the dysfunctional role of schooling as mainly a technical problem of education, and continually argued that the major problem facing schools is the potential unsuitability of education for the development needs of the country.

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[26] The Long-Term Comprehensive Educational Plan: 1972-86 op. cit., p. 7.

Therefore, in their efforts to improve the contribution of educational planning to national development, educational planners were basically technical in their orientation and their perspective largely limited to the management of efficiency of the educational system. In particular, for economic and ideological development, they were mainly concerned with such issues as the expansion of enrollment, curriculum change, teaching methods and evaluation, teacher training, and educational finances. For instance, the educational planners indicated the dysfunctionality of the suggested direction for change in the subjects currently offered in the primary school of the country in the following manner:

> The inefficiency of the school curriculum is common in all subjects; however, moral education and vocational education are the cases in particular. Although the anti-communism should be emphasized through the whole curriculum, only 1-2 hours are allotted in a single subject, and the affective domain of the curriculum were especially neglected in the subjects . . . . Vocational education should stress sound work ethics and attitudes, and adoption of skills and knowledge. However, in practice, they are omitted or substituted in vocational education without practice.[27]

The educational planners have been concentrating their efforts on bringing about educational changes without showing much awareness about the need for socio-economic and political transformation to create the new society. Certainly, there are technical and financial problems in education in Korea. However, a significant part of these difficulties stem directly from the model of national development and social structure. Thus, it is difficult or impossible to discuss any serious changes in the educational system without recognizing the nature of social structure and model of development. It has become increasingly evident that education does not operate in a social vacuum. Institutional arrangements should correspond to the wide social framework which sets the limits to educational planning.

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[27] The Long-Term Comprehensive Educational Plan: 1972-86 op. cit., pp. 793-94.

In particular, Korean educational planners failed to see the role of education from the perspective of its possible contribution to political legitimization. An assessment of Korean education from this perspective demonstrates its ultimate purpose as the reinforcement of established patterns of power. It also helps one to identify certain educational mechanisms which act as instruments of class control and demonstrate the way in which they operate. The mechanisms of class control simply help to reinforce the existing pattern of elite dominance. As seen in the last section, Park's regime had legitimacy problems through the whole period of the 1960s and 1970s, mainly because of the military nature of the government. This difficulty resulted in the then-ruling elite engaging in the practice of self-defense. As in the case of economic development, educational programs were often used as a means of assuring political survival.

It does not mean that the attempt to use education as a means of social control would always be successful.[28] There is a possibility of substantial inefficiencies and discontinuities in the process of power reinforcement through education. There is also education's limited capacity to supply socially disruptive knowledge to groups capable of using it. Even if education is, at a given time, creating or perpetuating some kinds of social inequalities or injustice, it is unlikely that these will be simultaneously legitimated. In short, education is not the automatic serving agency of the ruling class. It is an instrument of class control, but not in a blanket manner. It can promote anti-societal attitudes and behavior (for example, student radicalism) and develop apathy or resistance to educational institutions.

Projection of Student Enrollment in Educational Plans

In order to set the basis for an evaluation of educational planning for national development, it is necessary to limit the area of study and to specify the time period. This study begins with the issue of student enrollment in educational institutions. The reasons for focusing on this area of educational planning are (1) student enrollment has been the centre of the educational plans and the number of teachers, the administrators, the classes and the buildings that were to be provided are determined by it; and (2) all educational plans clearly specified the goal/targets in terms of the student enrollments each year during the planning period. In analyzing these projections of student enrollments, focus will be given to identifying the major goal/targets and the underlying assumptions.

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[28] Some of these examples may be found in military training program, New Community Education and Yushin (reformed) Education.

The Goal/Targets of the Student Enrollment Projection

The goal/targets of the student enrollment at the various levels of education may be classified from two related perspectives: (1) quantitative expansion of student enrollment projection, and (2) the qualitative improvement of educational conditions provided as a result of the expansion related to the expansion. These two aspects of the student enrollment projection were indicated in educational development plans in Korea during the 1960s and 1970s.

Quantitative Expansion of the Student Enrollment Projection

In the educational planning of Korea under the Park regime, the goal/targets of the quantitative expansion of the student enrollment were projected in two ways, i.e., (1) total number of enrollments, and (2) enrollment/advancement ratios[29] by the various level of education.

The Five-Year Educational Development Plan (1962-66) was revolutionary in changing the total student enrollment compared to the rest of other educational plans. In a sense, educational planners in Korea were becoming more realistic. The plan projected the ratio of academic to vocational students in high school should be changed from 6/4 of the basic year of 1961 to 3/7 by the target year of 1966. Similarly, for the Second Five-Year planning goal/targets, the ratio was shifted from 6/4 to 4/6. The Third and Fourth Five-Year Plans, however, did not specify such a ratio. In the case of higher educational institutes, the Five-Year Educational Development Plan (1962-66) announced that the student quotas would be reduced through the reallocation and abolition of the colleges and universities based on the regions in which they were located and their speciality. The student quotas were also continually but moderately adjusted in the subsequent planning periods.

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[29] The enrollment rates are the percentages of the enrolled to the children population under schooling age of each education level. In this study the over-aged children are excluded from the enrolled. The advancement rates are the percentages of the school graduates proceeding to further educational institutions.

The Long-Range Comprehensive Educational Plan (1967 -76) prepared by the MOE, for example, discussed the student enrollment policies as following statement:

> Although the college-age population will be increased, the students quota shall be maintained. Then the ratio will be altered from 5.8 percent in 1966 to 5.1 in 1971. The departmental structure in colleges and universities need to be changed to reflect the structure of industry. Quota increases of core departments for national polices shall be allotted to the national universities and the others will go to private universities (The draft of the Long-Range Comprehensive Educational Plan 1967-76, 1966: 34- 44).

The specific enrollment target and the rates of change that resulted from the policies are summarized in Tables III and IV, respectively (Also, see Figure II). The total enrollment in elementary school was projected. This increased to a maximum of 5,703,000 for the Second Five-Year period and decreased slightly over the next two Five-Year planning periods to 5,437,000. This pattern reflected the changing demographics in Korea. Table IV expressed this trend of annual percentage increase relative to the base enrollment for each planning period. In the middle school, the annual percentage increase rate was highest in the Second Five-Year planning period. Maximum anticipated annual growth rates up to high school in Table IV showed the progress of the baby boom through the educational system. However, that trend does not

TABLE III

ENROLLMENT TARGETS PROJECTED IN EDUCATIONAL PLANS IN KOREA, 1961-79

(in Thousands).

Planning Period/ Type of School	I 1961 Base[a]	 1966 Target[a]	II 1966 Base	 1971 Target	III 1971 Base	 1976 Target	IV 1976 Base[g]	 1979 Target[g]
Elementary School	3,855	4,918	5,165[b]	5,703[b]	5,795[e]	5,615[e]	5,496	5,437
Middle School	701	756	822[c]	1,215[c]	1,563[e]	2,094[e]	2,106	2,169
High School	266	332	435[c]	712[c]	629[e]	1,034[e]	1,253	1,474
Academic	164	100	260[c]	271[c]	329[e]	554[e]	740	870
Vocational	102	232	175[c]	441[c]	300[e]	480[e]	513	604
Higher Educational Institutions	143	52	123[d]	126[d]	202[f]	338[f]	290	338
Junior College	-	-		-	45[f]	73[f]	62	83
College & Univer.	-	-		-	157[f]	265[f]	228	255
Total	4,965	6,058	6,545	7,756	8,189	9,081	9,145	9,418

Source: a. The Five-Year Educational Development Plan: 1962-66, op. cit., pp. 193-242, 376, 420; b. The Five-Year Plan for Compulsory Education: 1967-1971 quoted in J. E. Kim (1973), op. cit., p. 137; c. The Five-Year Plan for Secondary Education: 1967-1971, op. cit., pp. 25-29; d. The Long-Range Comprehensive Educational Plan: 1967-1976 (Seoul: Ministry of Education, Republic of Korea, 1966), p. 347; e. The Five-Year Educational Development Plan: 1972-1976, op. cit., p. 29; f. The Long-Term Comprehensive Educational Plan: 1972-1986, op. cit., pp. 1234-41; g. The Educational Sector Plan of the 4th Five-Year Economic Development Plan: 1976-81, op. cit., pp. 36, 47, 52, and 91.

Note: - denotes that the data was not specified.

FIGURE II
TARGETS OF THE STUDENT ENROLMENTS PROJECTION
BY EDUCATION LEVEL

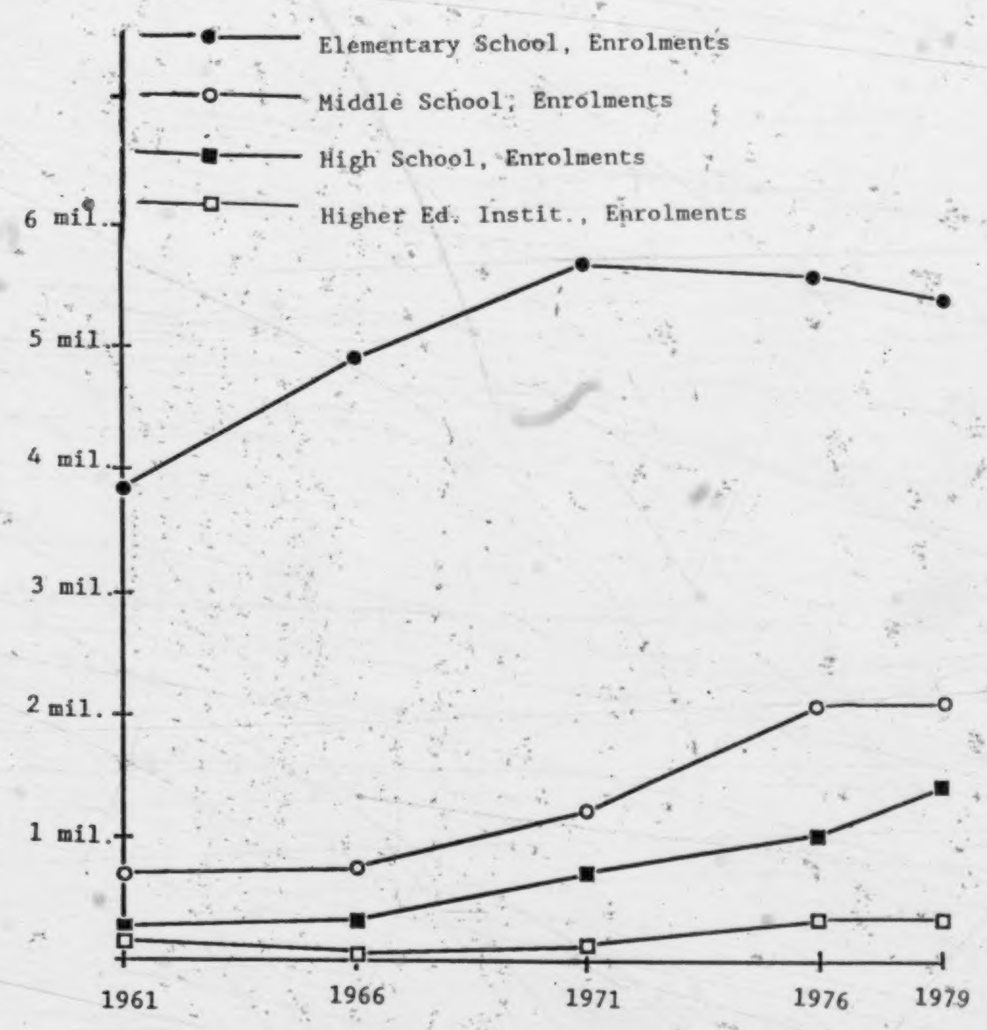

TABLE IV

ANNUAL PERCENTAGE INCREASE OF ENROLLMENT TARGETS PROJECTED IN EDUCATIONAL PLANS IN KOREA, 1961-79

(Unit, %)

Planning Period/ Type of School	I 1961-66	II 1966-71	III 1971-76	IV 1976-79
Elementary School	5.0	2.0	-0.6	-0.4
Middle School	1.5	8.1	6.0	1.0
High School	4.5	10.4	10.5	5.6
Academic	-9.4	0.8	11.0	5.5
Vocational	17.9	20.3	9.9	5.6
Higher Educational Institutions	-18.3	0.5	10.8	5.2
Junior College	-	-	10.2	10.2
College & University	-	-	11.0	3.8

Source: Based on Table III.

Note: Formula of annual percentage increase of enrollment targets: $T = B(1+r)^n$ where T = target, B = base, r = compounded annual change rate, and n = number of years.

continue for higher education mainly because of the government policy which will be fully discussed in Chapter V.

One of the most significant features in Table III relates to high school and higher educational institutes. As a result of the government policy to strengthening of vocational education in the First Five-Year planning period, the enrollment target of the academic high school was reduced from 164,000 for the base year to 100,000 in the target year of 1966. Conversely, the vocational enrollment target was dramatically raised from 102,000 in the base year to 232,000 of the target year. Similarly, in the Second Five-Year planning period the enrollment of academic stream was slightly increased from 260,000 in the base year of 1966 to 271,000 of the target year of 1971. Compared to the academic stream, the vocational enrollment was targeted at 441,000 for the final year. In the higher educational institutes, the enrollment was supposed to be reduced from 143,000 in the base year of 1961 to 52,000 in the target year of 1966. In the next planning period, the planners established for the Second Five-Year planning period more realistic target of 126,000. Future targets for the high school and higher educational institutes were relaxed even further.

Another indicator of the quantitative growth of students enrollments is enrollment/advancement ratio targeted in educational plans in Korea from 1961 to 1979. As shown in Table V, the educational planners and policy makers repeatedly increased goal/targets of students enrollments at the elementary level up to the Third Five-Year Plan for educational Development (1972-76). However, by the Fourth Five-Year Plan (1977-79), they no longer needed to be concerned with the quantitative expansion at this level because the goal/targets of universal education of this level had already been achieved. The First Five-Year Plan (1962-66) limited the goal/targets of the advancement ratio to 43 percent in the final target year of 1966. This meant that only 43 percent of elementary graduates were expected to advance to the middle school. But the rates for middle school were projected to increase steadily in later plans particularly in the Third Five-Year Plan. However,

TABLE V

ENROLLMENT/ADVANCEMENT RATIO TARGETS OF THE FIVE-YEAR EDUCATIONAL PLANS IN KOREA, 1961-79

(Person in Thousands; Ratio, %)

	I		II		III		IV	
Enrollment/ Advancement Ratios	1961 Base^{a}	1966 Target^{a}	1966 Base	1971 Target	1971 Base^{d}	1976 Target^{d}	1976 Base^{e}	1979 Target^{e}
Enrollment to: Elementary School*	85.0	90.0	91.9^{b}	95.0^{b}	96.9	97.1	97.0	-
Advancement to: Middle School	41.0	43.0	48.0^{c}	51.0^{c}	70.7	80.5	80.1	86.7
High School	-	-	75.0^{c}	75.0^{c}	66.2	66.5	75,6	75.6

Source: a. The Five-Year Educational Development Plan: 1962-66, op. cit., pp. 193-242, 376, 420.
b. The Five-Year Plan for Compulsory Education: 1967-71, quoted in J. E. Kim (1973), op. cit., p. 137.
c. The Five-Year Plan for Secondary Education: 1967-71, op. cit., pp. 25-29.
d. The Five-Year Educational Development Plan: 1972-76, op. cit., p. 29.
e. The Long-Term Comprehensive Educational Plan: 1972-86, op. cit., pp. 1234-41.

* Among the enrollments, over-age pupils who are beyond 11 years of age are excluded.

Note: - indicates the data is not available.

educational planners were strict in increasing the advancement ratio from middle school to high school during each planning period.

Qualitative Improvement of Educational Conditions

Quality of education, in general, involves an improvement in curriculum and courses of study, the physical facilities available, education and professional levels of teacher, etc. However, in this study, the major concern was how educational plans endeavored to improve the quality of education in relation to the quantitative expansion of the student enrollments. Therefore, the quality of education was examined with focus on improvement in educational conditions such as (1) student/teacher ratio, (2) class size, and (3) educational investment.

A high standard of education usually depends partly upon the number of teachers in relation to the student population as well as on their quality, and in this connection, the student/teacher ratio in Korea needed to be much improved. While the early educational planners recognized the importance of a favorable student/teacher ratio, they did not establish any specific goal/targets of the ratio of teachers to the students at each level of education over the years. In the Five-Year Educational Development Plan (1962-66), it was announced that elementary school teachers would be employed only in proportion to the natural increase in the student population, ignoring the current vacancies, largely, because of the expenses involved. In other words student/teacher ratios were not to be reduced during this period. In the Five-Year Plan for Secondary Education (1967 - 71) the ratio was hardly mentioned, and even the reference to it was negative. Finally the Five-Year Educational Development Plan (1962-66) attempted to set the goal/targets to reduce the student/teacher ratio in higher education. However, it was too ambitious to be implemented at the time the plan was prepared. The plan noted:

> At the present, student/teacher ratios in national universities are, on average, 20 in natural science, and 36 in humanities and social science fields. Based on the legal quota of faculty member to students in each department there will be 9 in humanities and social science, 12 in natural sciences in the final target year. As a result, the student/teacher ratio will be changed to 10 in natural science, and 13 in humanities and social science area in the target year of 1966.

In line with the proposed increase in the number of students, the educational planners of Korea were concerned about class size[30] from the beginning of the 1960s. For example, the Five-Year Educational Development Plan (1962-66) described the realities of compulsory education in the following way:

> Our country is in such a serious situation that the class size is extremely big for lack of educational

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[30] Class size stands for number of students per class.

> facilities in comparison with those of other countries. As a result the problem of compulsory education depends highly on a 2-3 shift system. (The Five-Year Educational Development Plan: 1962-66, 1961: 135).

During the same period (1961-66), the shortage of classrooms was similar in secondary and higher education to that of elementary schools. In spite of the urgent requirement for more classrooms, the early plans during the 1960s did not take measures to meet this shortage. The plans for compulsory education only mentioned the required budgets for school construction and school sites. In the case of secondary education, no plan specified the goal/targets to increase the number of classrooms size year by year except to indicate that about 40 percent of required classrooms would be borne by private institutions.

It was only after the Third Five-Year Planning Period (1971-76) that the students/teacher ratio and classroom requirements were seriously considered as goal/targets to reduce the class size and student/teacher ratio. Therefore any evaluation of development in those areas can only take place after 1971. Table VI indicates the goal/targets of students per teacher and number of students in a class projected in the Long-Term Comprehensive Educational Plan (1972-86).

The educational planners set the goal/targets to decrease the number of student per teacher in elementary school from 57 in the base year of 1971 to 50 in the target year of 1979.

TABLE VI

NUMBER OF STUDENTS PER TEACHER AND CLASS PROJECTED IN EDUCATIONAL PLANS IN KOREA, 1971-79

	Students Per Teacher			Students Per Class		
Type of School	1971 Base	1976 Target	1979 Target	1971 Base	1976 Target	1979 Target
Elementary School	57	50	50	61	55	55
Middle School	43	44	45	58	55	55
Academic High School	31	26	26	59	55	55
Vocational High School	27	23	23	55	55	55
Junior College	21	21	21	-	-	-
College & University	19	19	19	-	-	-

Source: *The Long-Term Comprehensive Educational Plan: 1972-86*, *op. cit.*, pp. 1124-5 and 1138.

Note: - indicates that data were not applicable.

The goal/targets in secondary and higher level of education were even more moderate than the primary education. In the case of middle school, however, the goal/targets on student/teacher ratio was increased from 43 in the baseyear to 45 in the target year. There were no changes of the goal/targets in higher education between the base and target year. The class size or students/class ratio was more or less in the same situation.

The Long-Term Comprehensive Educational Plan (1972-86) set the goal/targets of the class size of 55 in all education level. The plan pointed out that the goal/target was not so ambitious, but there were no other choices, considering the expansion of student enrollment and limited educational finances, especially the logistics of supplying 24,000 teachers to accomplish a decrease of 5 students per class.

The Fourth Five-Year Plan further specified optimal student/teacher ratio and class size in rural and urban areas.

The Long-Term Comprehensive Educational Development Plan (1972-86) also projected educational investment provision to support the cost for personnel and facilities (See Table VII).

TABLE VII

GOAL TARGETS OF PUBLIC AND PRIVATE EDUCATIONAL EXPENDITURES COMPARED TO GNP

(Unit, Billion Won, 1970 constant Price)

	GNP	Educational Expenditure			As % of GNP (A)		
Year	A= Estimates	B= Total	C= Public	D= Private	B/A	C/A	D/A
1971	2,689.3	150.5	102.2	48.3	5.6	3.8	1.8
1972	2,917.9	170.8	114.7	56.1	5.9	3.9	1.9
1973	3,165.9	194.7	128.4	66.3	6.2	4.1	2.1
1974	3,435.0	219.6	142.1	77.5	6.4	4.1	2.3
1975	3,727.0	247.0	158.2	88.8	6.6	4.2	2.4
1976	4,043.8	282.4	177.4	105.0	7.0	4.4	2.6
1977	4,387.5	307.4	202.6	104.8	7.0	4.6	2.4
1978	4,760.4	334.4	221.0	113.4	7.0	4.6	2.4
1979	5,165.0	362.5	241.1	120.4	7.0	4.7	2.3

Source: *The Long-Term Comprehensive Educational Plan: 1972-86*, *op. cit.*, pp. 1, 447-51, 488.

Note: a. Based on the minimum projection of students.

Educational cost, in general, refers to all expenses that are incurred on educational activities and is divided into public and private cost. All expenses for the publicity procedure of the government and its agencies are categorized as public educational cost. Those which are not included in this category fall under private educational cost (See Appendix Table I). The percentages of total, public and private educational expenditure to GNP for the different levels of the educational system were supposed to gradually increase from 5.6, 3.8 and 1.8 in 1971 to 7.0, 4.7 and 2.3 in the final target year of 1979. Educational planners anticipated that this increase of educational investment would result from an increase of unit cost per student due to improvement of living standards, change of expectations in education and diversification of the educational program. In particular, the plan emphasized the importance of public educational investment leading to national development through focusing on strategic fields of education such as science and high technology.

The Underlying Assumptions of the Student Enrollment Projection

The projection of student enrollment at the various levels of education in educational plans in Korea had two related underlying assumptions: (1) this new plan would result in greater educational opportunity for social mobility, and (2) it would meet the manpower needs for economic development. These assumptions were prevalent in educational plans during the Park regime.

Equalization of Educational Opportunity

Based partly on a social demand and partly on a manpower requirement approach, an underlying assumption of the student enrollment projection in educational plans in Korea was to equalize the educational opportunities available to the overall population. This assumption took into account the fact that the basis for student enrollment projection was the current steadily increasing demand for education and the expected future demand resulting from anticipated population changes. Equal educational opportunity was conceived in terms of providing access to a basic minimum education for all students. It also involved the idea of equal opportunity for all students to advance to higher levels in the educational system. The latter is further reaching in its implications than the former, which would have supplied a minimum of education for all.

An explicit concern for equality of educational opportunity comes from the view that backward or underprivileged classes and individuals could use it as a lever for the improvement of their socio-economic condition. In the Long-Term Comprehensive Educational Plan (1972-86), for example, the stated objective was indicated "to remove the inequality that existed in social class, region and sex and to promote equal educational opportunity."[31] As in the cases of other developing countries, equal opportunity for education in Korea has long been viewed as a mechanism for creating greater equality in the society, and many contemporary planners and observers in the past credited greater quality of educational opportunity with having contributed to greater social and economic mobility.

However, there is a grave danger in the underlying assumption that equalizing educational opportunity could be realized simply by the increased provision of educational services. Further, there is a great possibility that the projected increase in student enrollment would make it an instrument for creating the very inequalities it was designed to prevent. How could this be possible? The simple fact is that the educational system is based on social structure. If the ladder of educational opportunity extends much higher for some than the others, while at the same time formal education is made a prerequisite for occupational and social advancement, then education may become the means, not of eliminating various types of disparities, but of deepening and solidifying them.

Yet, despite the rather evident nature of the educational system, the educational planners and policy makers in Korea have tried to improve the efficiency in education for those underprivileged strata. Further, they have never fully understood the fact that there is the existence of a parallel or dualistic system of education: *first-rate* schools meet the needs of the upper classes, and the remainder of the population utilize the vast bulk of the *second-and third-rate* schools. This dual system of education is an empirical reality and is very much in existence from the lowest to the highest level. It is functional in reinforcing the existing socio-economic and power structure, and helps to solidify it rather than providing greater equality in the society through education.

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[31] Long-Term Comprehensive Educational Plan: 1972-86 _op. cit._, p. 78.

Matching Manpower Demand and Supply

Based on the manpower approach, another underlying assumption of student enrollment projection in Korea's educational plans was to meet the manpower demand and supply needed for economic development. Implicit in this assumption has been the nature of the demand for education by individuals. The immediate need was to expand or limit the supply in order to build up the type of human capital required for economic development. So long as the supply of educational places lagged behind both manpower needs and demand for education, increasing that supply was a proper response.

Therefore, because of the manpower needs, special attention was devoted to secondary and higher education. Recognition (of the need to gear educational output to projected manpower requirements) was reflected in the educational plans. The Five-Year Educational Development Plan (1962-66), for example, indicated the seriousness of unemployment in the beginning of the 1960s, and the need to control the output from the higher levels of the educational system. It noted that

> As a result of the high enrollment ratio of students, the numbers of graduates are in excess of demand in the society. For example, the graduates of the colleges are supposed to reach about 15,000, however, only 40 percent or 6,0000 graduates found jobs. Among those employed some of them are engaged in non-productive jobs. Therefore, huge amounts of expenses and time were wasted and have produced a parasitic intelligentsia.

Further, the educational planners in Korea used occupational structures as guides to estimate the amount and type of trained manpower that was needed. It was first stated in the Long-Range Educational Plan (1966-71), that the educational structure should be changed according to the changes in the industrial structure. It was noted that

> In 1966, when the plan was made the educational structure provided 60.2 percent for the primary industrial sector, 30.7 percent for the secondary industrial sector and 59.1 percent for the tertiary industrial sector. Then, by 1980, the demand ratio of college graduates from each industrial sector would be shifted to 3.8 percent, 37.3 percent, 58.9 percent respectively. Therefore, it is necessary to reduce college enrollments from the primary and tertiary sector.

In the Long-Term Comprehensive Educational Plan (1972-86)[32], a similar recommendation was made. In other words, while the primary sector should be decreased, the secondary sector was to be encouraged to increase during the 1970s and 1980s.

In spite of the promising expectation to meet manpower demand and supply, the projections were quite often subject to errors; skilled manpower projections are especially difficult to make with any degree of precision. It is not necessary to indicate all the technical problems involved in this process because those seem to be well-known and some of them have been already stated in Chapter II. In practice, however, it may be worthwhile to note the situation in the Korean context. B. M. Chung, a leading educational planner in Korea, reflected on the difficulties of the projection of student enrollment in relation to manpower development and commented as follows:

> I will admit in my experience as an educational planner that one is forced to come out with some plans for the figures of student enrollments . . . after lengthy considerations of need, forecasts, constraints, resources and forces. One feels at the beginning of the process that he should play the role of god-like prophet, looking crystal clear into the future. However, in real life, one feels foggy, weak, and incomplete in putting down the figures even after meticulous and complex calculation (B.M. Chung, 1981: 8).

But, then, why have the educational planners and policy makers in Korea persistently indulged in projecting student enrollment regarding manpower requirements, especially in post-primary schools? Certainly, there exists the attitude that they were seeking an immediate and visible return of investment in education. But they have not fully acknowledged that the student enrollment projection in relation to manpower requirement approach is directly associated with the efforts at ensuring the political legitimacy of Korean society. As we have seen in an earlier section, one of the major concerns of the Park regime in the 1960s and 1970s was political stability which may be directly related to the control of the educational system. The manpower requirement approach can provide strong justification for regulating the management of the colleges and universities and thus prevent an oversupply of students with higher levels of education since they have been considered to be a likely destabilizing factor in the society.

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[32] The Long-Term Comprehensive Educational Plan: 1972-86 op. cit., p. 34.

Summary

The goals of national security, economic development and political stability were ordered in a means-end relationship with economic development as the primary objective for national development. As was previously indicated, like the former regime of Rhee, Park's administration focused on economic development with economic growth for national modernization, and this resulted in an expansion of the planning functions of the state and the creation of a national planning organization. Along with a number of institutional changes, five-year economic development plans were established based on an outward-looking rapid industrialization strategy. The lopsided emphasis on economic growth in this period naturally caused imbalances in overall development. In particular, political and other development concerns were neglected in the name of political stability under the Yushin (reformed) Constitution of 1972.

First of all, the single-minded emphasis on economic growth during Park's regime was an indication of the naive assumption that the *trickle-down* effects of the benefits would be equally distributed to the people and further transmitted to other sectors. In this view, there is no clear recognition of the emerging social stratification in Korean society. It is also questionable whether or not economic development would be the only important factor leading the other aspects of development. Another underlying assumption of the national development planning was that its liberal and neutral view of the political regime was assumed to represent the common interests of the society. However, the regime had a continuous problem in establishing legitimacy and authority mainly because of the nature of the military government. Therefore, the regime selected economic development as a major national goal, not only because of the economic needs of the country but also to legitimize and sustain its own existence.

It was in order to attain its development goals that the

Park administration established educational planning in Korea. Educational planners and policy makers were made to believe that education was essential for achieving "national development." The two major goal/targets of educational planning therefore became economic and ideological development. Educational planning, in general, was viewed as a method of ensuring an adequate supply of manpower for economic development. It virtually ignored the development of other areas. To achieve this goal, Korea, as did many other developing countries, focussed attention on vocational education. The *ideological education* or spiritual education program which was formulated and directed by the government, was another area addressed in educational planning for achieving national solidarity. This ideological conditioning was attempted through military training, regular curriculum and extra curricular activities.

Concerning the relationship between education and national development in Korea, two major underlying goals were identified: *instrumentalism* for economic development and *functionalism* for socio-political stability. The former or instrumental view of education has two shortcomings from philosophical and sociological perspectives. From the philosophical point of view, the instrumental view shifted its focus from the *intrinsic* to *extrinsic* values of education. From the sociological point of view, the assumption of education as a prime mover of economic development also ignores the basic fact of the existing social structure in Korea. The latter functional view of education never fully acknowledged the existence of dysfunctional elements in its educational program for economic development. Non-recognition of the dysfunctional outcomes of education in development is also related to the fact that it ignored the use which was being made of education to control the population and provide support for the continued dominance of a political elite.

In order to set the basis of educational planning for national development, this study focuses on student enrollment projections in educational plans from 1961 to 1979. In general, the planning goal/targets of elementary and middle schools were to expand gradually the facilities available for education. This was related to the size of the population of various age groups and current and pressing demand for education. In high schools, during the 1960s, the educational planners set the ratio of students who were to be divided between the academic and vocational stream, and the growth of vocational schools was encouraged while the expansion of academic schools was discouraged. During the 1970s, however, the projections of enrollment for each stream in the high schools were not applied on the basis of a fixed ratio but were based on the major trend in the previous years of middle school among graduates. In projecting the enrollments of colleges and universities, the goal/targets were set as a means to regulate the student numbers, especially in the

1960s. In the 1970s, the projections of enrollment and expansion of departments was becoming relatively more flexible. However, the increase was still limited to the priority areas set by national development policies.

The projection of student enrollment at the various levels of education in educational plans has two related underlying objectives; to equalize the educational opportunity thereby making education an instrument of social mobility, and to meet the nation's manpower needs for economic development. The underlying assumption about equalization of educational opportunity, however, is not likely to be realized under the dual structure of the educational system. Another underlying assumption was that it is possible to match manpower demand and supply. This is also questionable, especially when we consider that a manpower requirement approach is used as a means of regulating the educational system for the political stability of the regime.

CHAPTER V

ACHIEVEMENT OF THE PLANNED GOAL/TARGETS AND THE UNDERLYING ASSUMPTIONS: AN ASSESSMENT

In the preceding chapter, the goal/targets and the assumptions underlying educational planning in Korea during the Park regime (1961-1979) were discussed. In the present chapter, an attempt was made to assess how the educational system actually performed in terms of achieving the planning goal/targets in relation to the underlying assumptions in the educational plans. Since the study was focused on the student enrollment projection, the discussion was confined to examining the achievement of quantitative and qualitative aspects of the student enrollment projection, and their two related underlying assumptions of equalization of educational opportunity and matching of manpower demand and supply, which were identified in the previous chapter.

Actual Performance of the Educational System: An Overview

Before comparing the outcomes of the actual growth of the student enrollments and the planning goal/targets of the educational plans, it is necessary to review briefly how the educational system performed during the period being studied, because without understanding the process of the educational system's performance, it may be difficult to grasp the meaning of outcomes of the educational system.

One might begin by asking the question, "What was the major characteristic in the performance of the educational system in Korea during this period?" First, it should be noted that a highly competitive pattern of entrance examinations was an outstanding feature of the Korean educational system. As in several other developing countries, education in Korea offered at any level was aimed mainly at preparing the students to move up the next rung of the educational ladder. So the primary schools remained essentially concerned with getting their students into the secondary schools, and these in turn tried to prepare their children to pass the entrance examination for the universities.

Furthermore, while the instructional strategies used in the schools had improved somewhat over the years, rote learning and cramming for examinations were common practices. A major result was that the acquisition of certificates--the *diploma disease* as Ronald Dore calls it--became the major goal of schooling, and neither students nor parents were concerned with the practical usefulness of what was learnt. Usefulness or relevance of curriculum content was seen in terms of its value in helping students pass the examinations which led to the next stage up the educational ladder or which gave the necessary credentials for the right jobs in the government or the emerging industrial sector. This created many educational problems and controversial issues in Korean education, and an examination of the facts specific to each level of the educational system will now be made.

Commitment to the Universalization of Primary Education

The Constitution of the Republic of Korea originally promulgated in 1948 provided that all people had the equal right to education and that elementary education should be compulsory and tuition-free. The Education Act of 1949 specifically provided compulsory education for all children between six and twelve years of age. All parents or guardians of children of compulsory school age were obliged by law to send their children to school.

According to the Education Act, the six-year compulsory elementary education was to be implemented on June 1, 1950. This was delayed, however, due to the unexpected outbreak of the Korean War (1950-53). The Korean War brought destruction to almost 50 percent of all classrooms and 90 percent of school facilities including libraries and laboratories.[1] As a result, the government had to provide financial resources to build or repair elementary school classrooms. Moreover, in 1961, the government provided textbooks free of charge to the first-year elementary students throughout the country, as well as to students in the remote areas.[2]

Park's military government accelerated its efforts to ensure that all the children of school age, regardless of sex, ability, or economic status be provided education at the elementary level. At the beginning of the Park regime, the most important laws granting elementary education were the Private School Law (1963) and the Local Education Grant Act (1963).[3] Enforcement of the Act in the islands and remote areas, and for physically handicapped children was facilitated by the distribution of free textbooks and the launching of the free lunch program.

The commitment, both in the Constitutions and in the Education Law to the universalization of primary education was achieved to such an extent that by 1965, an enrollment ratio of as high as 95 percent had been attained for primary education. This expansion in primary education was greatest in Seoul and other large cities. From the cities the efforts were directed out to all the remote regions.

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[1] Ministry of Public Information, Education, Korea Series No. 2. Seoul: Ministry of Public Information, Republic of Korea, 1968, p. 7.

[2] The Five-Year Educational Development Plan, 1962-66, *op. cit.*, p. 17.

[3] Under the Rhee government before 1961, there were other laws and ordinances such as Educational Public Officials Act (1953) and Financial Grant for Compulsory Education Act (1958).

The great expansion of elementary schools resulted in severe competition for the examination to enter middle school, especially to enter elite schools such as *Kyung-Ki*, *Seoul*, *Kyong-Bok*, and a few schools in certain big provincial cities. It truly produced an *examination hell* similar to the situation in Japan.[4]

It is time now to consider in what ways the examination influenced the teaching and learning in Korean classrooms. In general, four problems having negative effects on the development of education in Korea may be identified. These are the curriculum implementation, private tutoring, the students' health, and the pedagogical factors. First, the *over-heated* competition for entrance examination to middle school made the curricula abnormal or distorted. Yung-Dug Lee (1974:9) described the problem as follows:

> Amongst the unfavorable effects of the examination-oriented education system were such aspects as excessive competition which resulted in the implementation of abnormal or distorted curricula. Examination subjects such as national language, science, mathematics and social studies were considered the whole of the school curriculum. Music and art education or practical science only received a nominal time allotment.

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[4] The term *entrance examination hell* was used to indicate the vigorous competition.

Even though the official time table required that the allocation of time be strictly adhered to, the teachers themselves freely arranged ways to solve the problem indirectly. Gardening, arts and crafts, music and physical education were either skimmed or ignored. At home, the teachers gave extra lessons in the examination subjects.

Second, severe competition stimulated parental zeal, in what was symbolized as *Skirt Wind* at the time.[5] Further, parents had to bear a heavy financial burden since they were forced to provide extra lessons such as private tutoring to help ensure their success a the examinations. This in turn threatened the economy of the households and caused various social problems. The effects of the private tutoring will be discussed in the next chapter, but it was a known fact that it provided middle class children with a great advantage in competing for the entrance examination.

Third, the health of the children, both mental and physical, was visibly weakened due to overwork and pressures or tensions. Few children by the time they reached grade six, the last year of the elementary school, were able to sleep for more than six hours per night because of the need to prepare themselves for the examination. They suffered from various physical diseases and exhibited abnormal growth characterized by small physical frame, lack of vitality, weak sight and anemia, etc. Their emotional development and full character development suffered accordingly. Children were emotionally distressed under the strain of competition, and this caused alienation, mental illness, and quarrels with parents or friends (Yung-Dug Lee, 1974).

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[5] *Skirt Wind* denotes the perverse fanaticism on the part of the mothers of those students who were to take the examinations.

Last, but not of least importance, the excessive competition system created pedagogical problems. Children were given the notion that preparation for the examination was the aim of all learning, and admission to a so-called *first-rate school* would fulfil a life's objective. If one failed the entrance examination, it meant that s/he would be a failure all through life. The objective value of education was reversed by the manner in which education was delivered.

The *Open-Door* Policies for Secondary Education

Educational policies concerning entrance examination, particularly for middle schools, had been one of the public controversial issues since the establishment of the Korean government in 1948. The competition over entrance examinations, as has been pointed out, became keener after the Korean War and reached its peak in the 1960s. Both educational policy makers and the general public showed deep concern over the issue in the years after 1965.

As a means of reducing the children's burden in preparing for their entrance examination, the Ministry of Education

(MOE) authorities ordered that the scope of the examination be limited to only the content of the elementary school textbooks. However, the educational policy failed to reduce the gap in performance among children from the so-called *first-rate* and the *second* or *third-rate* elementary schools.

Finally, the MOE announced in July, 1968, with President Park's approval, steps to abolish the entrance examination for middle schools. The program was entitled *The School Precinct System by Lot* with no examination for middle school admission. The procedure for its implementation was as follows:

(1) The establishment of new school precincts in 1969 on the basis of administrative or existing elementary school precincts. Applicants should enter the schools in their precinct without tests, but according to the lottery system.
(2) The 14 best known or so-called first-rate middle schools, either public or private, were discontinued and gradually reorganized into high schools in 1971.
(3) The new system was to take effect throughout the country in three years' time, gradually expanding from Seoul in 1969 to large cities like Pusan, Taegu, Kwangju, Incheon and Chongju in 1970; and the others by 1971.

With these necessary modifications, the plan for allocating students by lot to a middle school was implemented throughout the country. The question which next arises is "What were the consequences of the non-examination admission policy?" The Ministry of Education, in the 30-Year History of Korean Education, indicated that the policy had a great impact on Korean education and summarized it as follows:

(1) It had a positive outcome on the physical development of children,
(2) Over-heated private tutoring was abandoned,
(3) The extreme gaps in the quality of education among the schools disappeared,
(4) The curriculum of the elementary school became more balanced, and
(5) the compulsory education policy came to be appreciated (1980: 121).

On the other hand, the report also pointed out the limitation of the policy in terms of the distance involved in transporting the children to school, the teacher's problem in coping with differences in students' academic achievements, and discrepancies in facilities and teaching staff, etc. Moreover, as a result of the new system of admission to middle school, there was a rapid increase in the number of elementary school graduates entering the middle school. As a consequence, the policy only postponed competition for passing the examination from entry into middle school to entry into high school. In actual fact, the *examination hell* was not really eliminated, it was only raised to the high school level. Similar disorders arose there.

With the entrance examination to middle schools out of the way, the education authorities turned their attention to reforming the high school entrance examination. Until 1973, with the support of the school entrance examination, students could apply for admission to any high school of their choice anywhere in the country. It was commonly known that some academic high schools had better reputations than others in the way they were preparing students for the universities, and these therefore attracted the students with highest academic achievement. In 1973, the central government therefore declared its intention to hold a preliminary screening examination for admission to high school.

According to the new policy, the middle school graduates could apply for entry to any school, either academic or vocational. However, applying to the vocational high schools had to be done before the academic high school examination was taken. Only students who did not apply or who were not admitted to vocational high schools could apply to academic high school. This policy was to make vocational education considered more favorably than academic studies. This selection scheme was put into effect in Seoul and Pusan in 1974, and in Incheon, Taejon and KwangJu in 1975. Later, in 1979, it was applied to seven other cities, making a total of 12 cities. Seoul had been divided into five residential areas for this purpose. The idea was that all residential areas were supposed to be equally prestigious. Most of students were randomly assigned to a school after taking nothing more than a qualifying examination.

The equalization policy for high school entrance was often described as an *explosive declaration* with the non-examination admission policy for middle school. It provoked a great controversy, was hailed as a panacea for the greatest evils in Korea education on the one hand, and criticized as a reckless venture with little concern for educational reality on the other. In general, however, the public, as well as the teachers' organization came to support the policy. A series of evaluation studies on the equalization of the quality in high school education was conducted by a research team from the Korean Education Development Institute (KEDI) in 1978. The study found that the policy for entrance to high school helped greatly in the development of a balance in the curriculum and with the democratization of educational opportunity. However, there arose some problems in implementation and academic quality. In short, as in the case of non-examination admission policy for middle school, problems with the equalization policy based on non-competition from the middle school to high school, moved up to university entrance level (Yoon-Tai Kim, et al., 1978).

***Bottleneck Problem* in Higher Education**

As has seen above, the students' access to the next level of schooling had been greatly facilitated up through to the high school. But then the bottleneck phenomenon shifted upwards to the college or university level. The situation was difficult in the latter years of the 1970s. In 1978, for example, about 50 percent of the high school graduates aspired to enter institutions of higher education, but only half of them could be admitted to colleges and universities. A large number of students were failed at the National Preliminary

College Entrance Examination. As well, those students who passed the National Preliminary College Entrance Examination but subsequently failed to pass the examination administered by the university had to repeat the examinations year after year.

Of course, not all the students were going to be performing well at the college level. But the zeal to enter first-rate higher educational institutions in the fashion of the elementary and secondary schools was renewed in the highly competitive scramble for the elite universities. Such a tendency feeds on the view that entrance to these institutes guarantees easier access to a job of high socio-economic status. However, the enrollment capacities of these more prestigious institutions were limited. Therefore it could be said that the discrepancy between the demand for and supply of places at these institutes was a fundamental cause of the problem of examination preparation.

In fact, Korean society has accumulated tens of thousands of the so-called *repeaters* in the arena of examination for higher education. This has become a source of a serious and chronic social problem facing the nation through the whole period covered by this research. Various kinds of negative side effects had developed in the society, such as the socio-economic and psychological impact of the extremely prevalent private tutoring.[6] Because of the complexity of this problem, public criticism of the educational system increased and drastic reforms were demanded.

In order to solve this problem, the Korean government set a target to expand the college and university entrance quotas. As mentioned earlier, the students who were unable to get to the elite university were sent to new institutions (mainly professional colleges), provincial universities and the correspondence universities.[7] Although the 1960s and 1970s saw a noticeable increase of colleges and universities, the policy could not overcome the demand for private tutoring. In other words, the expansion of non-elite universities could not satisfy the aspirations of the students and parents. The desire to go to the more prestigious universities pervaded the concern of students and their parents. Here, we can see that simply increasing the opportunity for higher education did not provide the solution to the problem, because many still preferred to remain as repeaters for the entrance examination to the elite universities.

Needless to say, the problems of repeaters at examinations or private tutoring were rooted in the selection system of education, especially the equalization policy of high schools. Why did this equalization policy encourage the private tutoring? As the word *equalization* indicates, high schools had become fairly comparable in terms of student achievement due to equal inputs in terms of teachers' quality, facilities and school management. But with the disappearance of the handful of first-rate high schools, the overall quality of high school education might have deteriorated. Ambitious parents no longer saw any prospect of giving their children an edge over others in competition for entry into these schools. But nevertheless, the private tutoring rekindled the *first-rate fever* as a possible means of creating excellence in the entrance examinations for the handful of elite universities.

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[6] For a thorough analysis of the problem of accumulation of the repeaters and related issues, see C. J. Lee (1980).

[7] A similar case may be found in the history of community colleges in the United States and the open university system in Great Britain. (See Karabel, 1972; Bowles and Gintis, 1976: Chapter 8).

Briefly, reviewing the performance of the educational system in Korea during the period under study, it was obvious that there was a severe and growing gap between the supply of educational places, especially with the ever growing demand for secondary and higher education. The overall aggregated gap had been gradually narrowed, first at the middle, then at the high school level. This resulted in increased chances of students receiving improved higher education. However, parents never lost the preference for so-called *first-rate* schools. This fact created the severe competition to pass the entrance examination at each education level, and this resulted in the growing importance of private tutoring. This in turn raised a question of equality in educational opportunity and the fairness of the competition for entry into institutions of higher education.

Achievement of the Planned Goal/Targets

The principal task of this section was to delineate the outcomes of the educational system's performance with special reference to the achievement of the goal/targets of student enrollment. The focal point of discussion was directed at analyzing the quantitative growth of the student enrollment and the qualitative improvement of the educational conditions. The analysis will proceed in the following way: (1) it will describe the outcomes of the educational system's performance, and (2) will examine the discrepancies between the planning goal/targets of the educational plans. A comparison of the targets with the actual achievement at the end of the planning periods will be revealed by the evaluation of the plans, whether there had been shortfall or over-achievement.

Explosive Growth of the Student Enrollment

The quantitative growth of the student enrollment was analyzed in general in terms of these three variables: (1) total number of students enrolled at various levels of the educational system, (2) the enrollment to advancement ratio, and (3) the drop-out rates. However, Korea was one of the few developing countries that implemented the policy of automatic promotion at all levels.[8] Therefore the drop-out rate was very low, not only at the elementary school but also at the secondary school level. Even at the higher education level, it was almost guaranteed that one would graduate if s/he passed the entrance examination to a college or university. Because of this, this study did not examine the drop-out rates and considered only the first two factors, the total number of enrollments and the enrollment and the advancement ratios.

Total Number of Enrollment

The enrollment at each education level increased continually during the last 18 years and their results are illustrated in Table VIII (See also Figure III). The total enrollment rose from about five million in 1961 to 10 million in 1979, and thus doubled in 18 years. The rate of growth of elementary school enrollment was considerably lower (1.5 times), which was not surprising in countries which had achieved or almost achieved universal primary education.[9] Secondary education grew the fastest, increasing more than four times during the same period. Compared to the enrollment of middle school, high school enrollment expanded more rapidly, especially in the vocational high schools. Under the

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[8] Many less developed countries (LDCs) do not have a system of automatic promotion from one grade to the next (Simmons, 1980:41).

[9] Enrolment declined in great numbers after 1970 as the backlog of unsatisfied demand of children older than the age group was met and as the population growth rate declined.

TABLE VIII

INCREASE IN SCHOOL ENROLLMENTS, 1961-79

(Unit, in thousands)

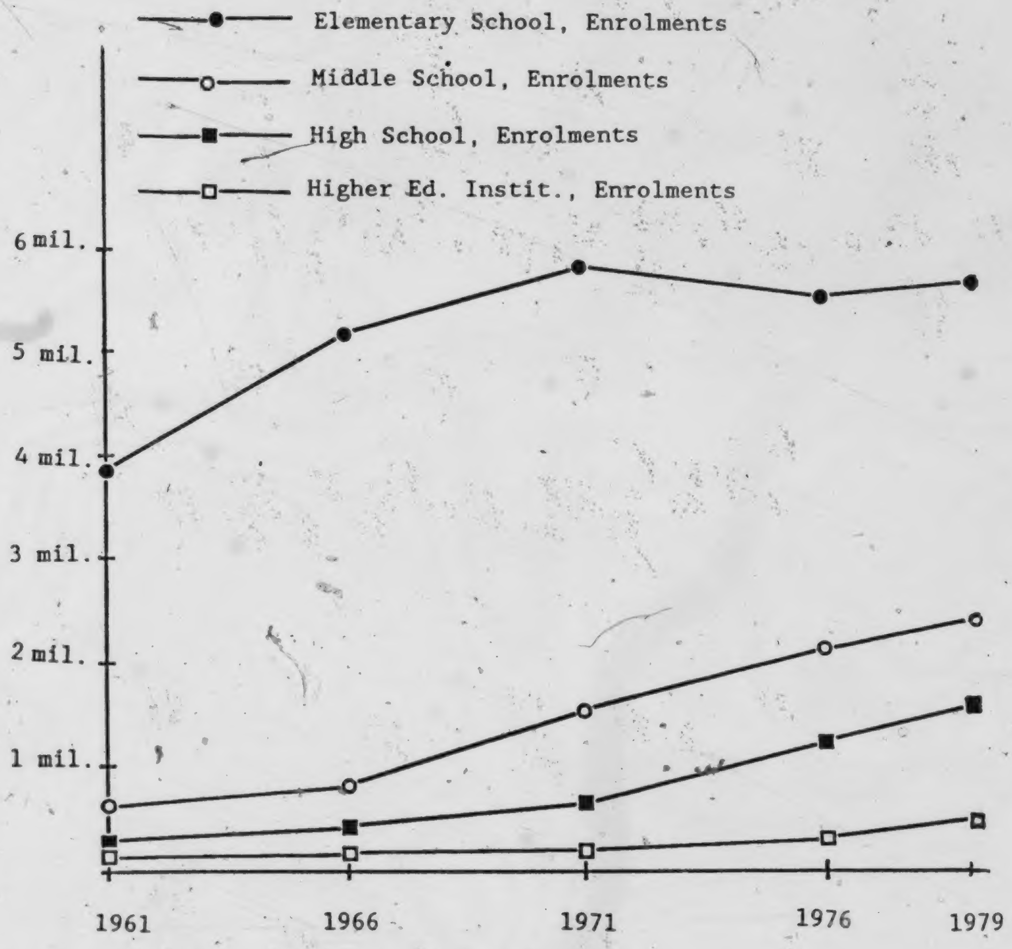
Type of School	1961	1966	1971	1976	1979	1961-79[a] (%)
Elementary School	3,855	5,165	5,807	5,504	5,640	146.3
Middle School	621	822	1,530	2,116	2,394	385.5
High School	296	435	647	1,235	1,565	528.7
Academic	194	260	337	746	888	457.7
Vocational	102	175	310	507	678	664.7
Higher Ed. Institutions	140	167	200	308	480	342.9
Junior College	6	36	45[b]	78[c]	150[d]	2500.0
College & University	134	131	155	230	330	268.3
Total	4,912	6,589	88,184	9,163	10,079	205.2

Source: Ministry of Education, *Statistical Yearbook of Education* (Seoul: Ministry of Education, Republic of Korea) of corresponding years

Note: a. The growth rate of enrollment in 1961 was 100%.
b. Included 3,000 students of Junior Vocational Colleges.
c. Included 55,600 students of Junior Vocational Colleges.
d. Included 600 students of Junior Technical Colleges and 15,200 students of Junior Vocational Colleges which were first introduced in 1979.

FIGURE III

GROWTH OF STUDENT ENROLMENT BY EDUCATION LEVEL



quota system introduced by the government, there has been a steady numerical expansion of higher education students in general over the past two decades, particularly, those various types of junior colleges where enrollment rose between 1961 and 1979 by about 2500 times.

Comparing these data with those given in Table II in Chapter IV, it is evident that, with few exceptions, more students were registered than expected in the educational plans. But this does not mean that most goal/targets of the educational plans were achieved.

According to the Five-Year Educational Development Plan (1962-66) the enrollment proportion between academic and vocational schools should have been reversed from 6/4 to 3/7 in the target year, which was a part of the policy of strengthening vocational education. However, in the target year of 1966 the enrollments of the academic and vocational high school recorded 260,000 students and 175,000 students respectively, and thus, their ratio did not vary from the base year of 1961. The Second Five-Year Plan (1967-72) also indicated that the goal/targets in terms of enrollment between academic and vocational high school would shift from 6/4 in the base year to 4/6 in the target year. But the actual results were more or less the same as in the first planning period. What this fact means is that the students and parents still preferred to choose academic rather than vocational high schools, despite the government's policy. This has also been the situation in other developing countries.[10]

The differences between the actual outcomes in terms of student enrollment and the original intention of the educational policy makers and planners also occurred in higher educational institutes in Korea. As seen in Table II, through reallocation and abolition of the colleges and universities, student enrollment in the Five-Year Educational Development Plan (1962-66) was supposed to reduce from 143,000 in the base-year to 52,000 in the target year between 1962 and 1966. In spite of the ambitious goal/targets of the plan, enrollment in the higher educational institutes was actually increased to 167,000 in the final target year. The initial goal of the plan to reduce the student numbers in higher educational institutions was to match the manpower demand of the economy. However, the policy was not effective mainly due to the socio-political reasons which will be discussed more fully in the Chapter VI.

Because the base-year enrollment figures used in the plans did not coincide with the more accurate statistics available at a later date, it was necessary to examine the rate of increase for each level in order to determine whether the outcomes of the student enrollment corresponded with the intentions of educational planners. Table IX shows the annual average percentage increase of enrollments in elementary schools, middle schools, and high schools; and in higher educational institutes for the years 1961-79.

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[10] As we can see in P. Foster's Education and Social Change in Ghana (1965), the preference of academic rather than vocational high school has been a characteristic phenomenon in developing countries.

TABLE IX

ANNUAL AVERAGE PERCENTAGE RATES OF GROWTH IN SCHOOL ENROLLMENTS IN KOREA, 1961-79

Planning Period/ Types of School	I 1961-66	II 1966-71	III 1971-76	IV 1976-79
Elementary School	6.0	2.4	-1.1	0.8
Middle School	5.8	13.2	6.7	4.2
High School	8.0	8.3	13.8	8.2
Academic	6.0	5.3	17.2	6.0
Vocational	11.4	12.1	10.3	10.2
Higher Ed. Institutions	3.6	3.7	9.0	15.9
Junior College	43.1	4.6	11.6	24.4
College and University	-0.5	3.4	8.2	12.8

Source: Based on Table VIII.

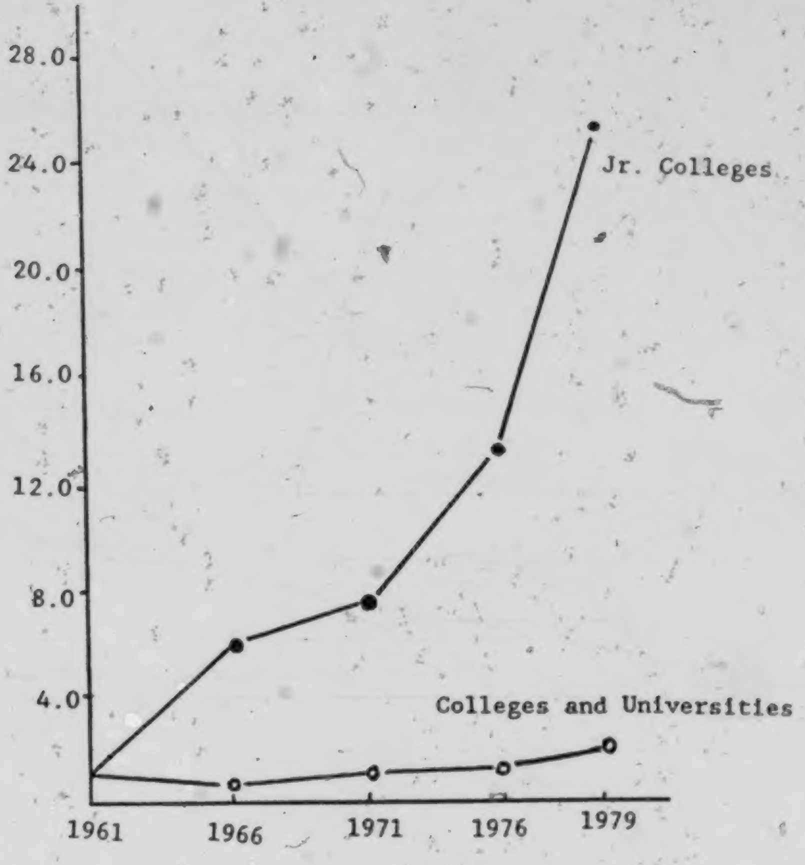
Note: Compounded annual change rate. See note for Table IV.

By tracing the major trends in the annual average rates of growth at each education level, it was noted that the highest rate of increase shifted from the lower levels to the higher levels of the educational system during the planning periods. Enrollments in the elementary schools were the highest in the early 1960s, or the first planning period; in the middle schools, high schools and the higher educational institutes, they were highest in the 2nd, 3rd and 4th periods respectively. Without question the highest growth rate of middle schools and high schools corresponded exactly to the removal of the entrance examination for the middle school, and the equalization policy for high schools which occurred in 1969 and 1974 respectively. In the high schools, enrollment in the vocational institutes rose faster than enrollments in the academic institutions during the first and the second planning periods (1961-71). However, this pattern was reversed by the third planning period (1971-76). The various types of junior colleges expanded 10.1 times more than senior colleges and the universities. This was in accordance with the government policy to solve the chronic *repeaters* problem by maintaining a dual structure in the educational system (See Figure IV).

A comparison of the actual outcomes and the goal/targets of the educational plans (Table IV) more clearly shows that the annual average growth in school enrollments far exceeded the projected ones. Interestingly enough, however, enrollments in the vocational high school had always been behind the goal/targets during all the planning periods. Another point to make here is that the plans's targets were clearly unrealistic and proved to be beyond the possibility of being realized. The military government was too ambitious in establishing the goal/targets, particularly in vocational schools and higher educational institutions. These massive changes took place at the time because the majority of people felt strongly that changes needed to be made in education. Because the military government wanted to show decisive and

FIGURE IV

GROWTH INDEX OF HIGHER EDUCATIONAL INSTITUTES



revolutionary leadership, it decided to make the changes arbitrarily. Changes were necessary, but the changes made by the government resulted in unrealistic goals which would have been extremely difficult to achieve. That is the reason there were severe discrepancies between the goal/targets and the outcomes.

The Enrollment and Advancement Ratio

The second method of assessment of whether the targets in the five-year plans were achieved was through an examination of the enrollment/advancement ratios for each educational level. This measure of educational development would be more satisfactory than the simple enrollment totals. It took into account possible variations in the rates of growth enrolment among the various age groups and the graduates for each educational level. Also, the enrollment/advancement ratio affords some measure of the extent to which educational opportunities were being utilized. The latter factor was especially significant, of course, where the goal of universal schooling is concerned.

Table X reveals that the opportunities for education increased dramatically in terms of the enrollment/advancement ratios. As the figures pertaining to enrollment ratios in elementary school were percentages of enrollments according to age groups, over-aged pupils were excluded. Therefore, the actual outcomes of the gross enrollment ratios in elementary schools went far beyond the net enrollment ratios, and reached universal education (96.7%) in 1967.[11] The advancement ratios or the percentages of school graduates proceeding to further educational institutions were very high. In the final target year of 1979, the ratios from elementary to middle, from middle to high, from high to college and were 93.4, 81.0, and 40.8 percent respectively. The advancement ratios in secondary schools rapidly increased, especially after the abolition of the middle school entrance examination in 1969 and the high school equalization policy in 1974. The advancement ratio for higher education did not seem to have risen as fast as the general increases in primary and the secondary education. In fact, the advancement rate had been slowly falling at least up to the late seventies due to the Korean government's national control system of the student quota.[12] Therefore, the advancement ratio of the higher educational institutes, especially the elite universities, still fell far short of the level of aspirations expressed by the Korean people.[13]

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[11] See The Statistical Yearbook of Education, Seoul: Ministry of Education, Republic of Korea, 1967, p. 117.

[12] Of course, it does not mean there had been any decrease of absolute numbers of students since the enrolments at the lower level of schools had greatly increased.

[13] A survey conducted by the Institute of Social Science, Seoul National University in 1980 found that the percentages of parents who intended to send their children to colleges or above, definitely or if possible were 84.3 and 71.3 for male

TABLE X

ENROLLMENT/ADVANCEMENT RATIOS OF THE EDUCATIONAL LEVELS, 1963-79

(unit, %)

Enrollment/Advancement Ratios	1963	1966	1971	1976	1979
Enrollment to:[a]					
Elementary	85.0[c]	90.0	96.2	96.4	98.4
Advancement to:[b]					
Middle School	49.5	54.1	69.6	79.5	93.4
High School	64.4	65.7	69.4	75.5	81.0
Higher Educational Institutions	30.0	29.1	27.5	30.3	40.8

Source: Economic Planning Board, Population and Housing Census, 1960 (Seoul: Economic Planning Board, Republic of Korea, 1963); Economic Planning Board, Population Census Report, 1966 (Seoul: Economic Planning Board, Republic of Korea, 1968); Economic Planning Board, Population and Housing Census Report, 1970, 1975, 1980 (Seoul: Economic Planning Board, Republic of Korea, 1973, 1978, 1983). Korean Educational Development Institute, Educational Indicators of Korea (Seoul: Ministry of Education, Republic of Korea, 1963-79).

Note: a. Percentage of enrollments to corresponding age group of elementary school (Ages 6-11).
b. Percentage of school graduates proceeding to further educational institutions.
c. Base year of 1961.

If actual outcomes of the educational system was compared with the projections of the educational plans in Table V, it will be seen that most of the enrollment ratios at each educational level were increasing more rapidly than the expectations of the educational planners and policy makers, Further, the directions of growth also did not correspond to the intentions of the planners in many cases. For example, the Five-Year Educational Development Plan (1962-66) set a

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and female offspring respectively. (Kyong-Dong Kim, 1985: 229).

increases in the enrollment ratio was 54.1 percent. The Second Five-Year Plan (1966-71) and other succeeding plans had repeatedly indicated that the goal/targets of the enrollment ratios of high school were to maintain the figures in the base years. However, this never happened and there were always some increases throughout the planning periods. As the educational plans under the Park government had not projected the enrollment ratios of higher educational institutes, it was not possible to compare the projections and the actual outcomes.

Nevertheless, as can be seen from the above analysis, there was a phenomenal expansion in the number of students enrolled in Korea's educational institutions during the 1960s and 1970s. This growth occurred not only in the elementary school, but also in secondary and higher educational institutions. Enrollments had also increased considerably not only in absolute numbers but also in relative rates in comparison to the projections of educational plans. However, the outcomes of the quantitative growth did not coincide with the goal/targets of the plans.

Low Improvement in Educational Conditions

There had been some problems concerning what the quality of education really meant and how it could be evaluated. However, because, this study is mainly concerned with the probable effect of the quantitative expansion of student enrollment, the improvement of education will be measured by the certain quantitative indices, such as (1) student/teacher ratio, (2) class size, and (3) the percentage of the GNP spent on education out of the government budget. These criteria were used in educational plans in Korea. These are, of course, indirect measures of qualitative improvements in education. However, it was possible to evaluate the performance of the educational system by comparing the outcomes in relation to the goal/targets of the educational plans during the period being researched.

Student/Teacher Ratio

Statistics on the employment of teachers were useful in determining whether the expansion of schooling was justified on the basis of an expansion in the student enrollment. In general, there was a relatively rapid increase in the number of teachers from the 1960s to the 1970s. For example, statistics showed that the total number of teachers had increased from 119,305 in 1965 to 236,929 in 1979, a rate of increase of 99 percent for 14 years or 7.1 percent per year. During this same period, the rate of increase in the number of schools and students was 32 and 61 percent respectively, indicating that the educational condition in terms of student/teacher ratio had apparently improved.

However, the great improvement was, in most cases, caused by an increase in the number of teachers and the decrease of student enrollment in elementary schools which had 61 percent of the total numbers enrolled in all educational institutions in 1979. (This also occurred only at the elementary level.) Table XI, however, clearly shows that the increase in student enrollment at other levels of the educational system was accompanied by a steady rise in the student/teacher ratio. In order to cope with the problem of training this increasing number of teachers in the elementary schools, junior teachers' college and teacher-training institutions were established on a temporary basis in 1962. Besides, enrollments of the elementary schools totalled 5.8 million pupils, or 69.6 percent of the total student enrollment in 1971, but the percentage gradually decreased in later years. This, along with an increase of the number of elementary school teachers employed contributed to the decrease of 21 percent in the student/teacher ratio at the elementary school level during the 18 years from 1961 to 1979.

However, most of the increase in the enrollment of middle and high schools was not accompanied by an increase in the number of teachers at the secondary education level. The figures for the vocational high school in particular substantiated the possibly negative impact of the quantitative expansion of the educational system on the quality of education being provided. In higher education, the student/teacher ratio was slightly improved between the late 1960s and 1970s. However the situation was reversed again thereafter. In the Junior Colleges, the student/teacher ratio was even worse than at the senior colleges and universities.

TABLE XI

NUMBER OF STUDENTS PER TEACHER IN KOREA, 1961-79

Type of School	1961	1966	1971	1976	1979
Elementary School	61	61	56	50	48
Middle School	41	42	43	44	45
High School	29	30	29	32	33
Academic	29	33	32	33	34
Vocational	21	26	27	31	32
Higher Ed. Institution	-	22	20	23	27
Junior College	-	37	24	24	27
College and University	-	23	19	23	25

Source: Ministry of Education, Statistical Yearbook of Education of the corresponding years. KEDI, Basic Statistics for Long-Term Educational Planning (Seoul: KEDI, 1978).
Note: The symbol - denotes that the data was not available.

The next question to be considered was "To what extent have the expected outcomes of student/teacher ratios been achieved in comparison to the planning goal/targets indicated in the educational plans?" Since the student/teacher ratio was only projected in the Long-Term Comprehensive Educational Plan (1972-86), the comparison will be limited to the 1970s after this document appeared (See Table VI). Elementary and middle school achieved their goal/targets of 50 and 45 students per teacher in 1979 respectively. However the ratios in the high schools and in higher educational institutes was far higher than was mentioned as the goal/target. In the final target year of 1979, a high school teacher had to teach an average of 8-9 more students, and a professor of higher educational institutes was in charge of an average of 6 more students than the goal/target.

The condition was more serious in big cities. In Seoul, for example, the excess of students per teacher in the elementary, academic and vocational high school was 18, 7, and 9 in comparison to the goal/targets in the educational plans (See Appendix Table II). In general, the increasing numbers of teachers in Korea could not keep up with the increases in student enrollment and remained far behind the educational goal/targets. As a result, teachers' workloads were increased, and this, in turn, might have contributed to the decline in the quality of the education offered.

Class Size

Another criterion used to assess whether there has been any improvement in education was the availability of facilities, particularly the amount available on average to each child in a class. The research findings on the space available in terms of the number of classrooms which were needed have been diverse.[14] As Table XII shows, class sizes in general were very high. There was a steady growth in the size of classes except in the elementary schools, where enrollments had already peaked in 1970. The number of pupils per classroom in the elementary school had been in excess of the legal quota of 60 during the 1960s and gradually declined in the 1970s. The number of children in each classroom of the middle schools and the high schools had definitely been increasing. Most significant, perhaps, were the large class sizes in vocational high school, despite the fact that it has been usually argued that in order to ensure efficiency in vocational training, it is necessary to maintain small class sizes (10 or 15 students).

As indicated in Chapter IV, the educational policy planners of the Long-Term Comprehensive Educational Plan projected the number of students per class to decrease to 55 at all education levels (See Table VI). In comparing the results with the planning goal/targets, great discrepancies were found: only elementary schools achieved their goal/targets, while others were far behind the targets in the plan. As in the case of the student/teacher ratios, the success of elementary schools was mainly indebted to the

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[14] The research findings were: some studies indicated that smaller classes increased student achievement and better attitudes; others discovered large classes to be more effective; and still others found no appreciable differences in students' academic or personal development whether they were in either small or larger classes.

TABLE XII

NUMBER OF STUDENTS PER CLASS IN KOREA, 1961-79

Type of School	1961	1966	1971	1976	1979
Elementary School	60	65	61	55	52
Middle School	57	61	63	65	66
High School	-	57	62	58	59
Academic	54	60	60	59	60
Vocational	51*	52	57	57	59

Source: Ministry of Education, Statistical Yearbook of Education of the corresponding years; KEDI, Basic Statistics for Long-Term Educational Planning (Seoul: KEDI, 1978).

Note: The symbol - denotes that the data is not available.
* 1962 statistics.

continued support system for elementary education in Korea during the 1960s and 1970s. Further, in Seoul, the situation was even worse than that of whole country (See Appendix Table III). For example, the class size of elementary school in Seoul reached 71 in the final target year of 1979, which means there were 16 more students in the class than suggested in the planned goal/targets. On the other hand, there were schools accommodating classes of small sizes, especially in the remote areas.

Educational Investment

An improvement of educational quality is also highly dependent on educational expenditure in the context of rapid student enrollment growth outpacing the expansion of the teachers and the school facilities. Park's government made a special effort to increase educational expenditure, especially for the expansion of primary education. For instance, to finance local education, the Law on Financial Grants for Local Education was enacted, which fixed the proportion of internal tax earmarked for education.[15] However, this legal position slipped away in 1972 with the emergency decree which was intended to cope with economic problems occasioned by the energy crisis. Consequently, the funding of education in Korea was lost in the face of mounting pressure for a better treatment of teachers.

In order to calculate the total increase of educational expenditure which occurred, it was necessary to get data on private expenditure on education. However, because the Korean government had not produced any statistics on private expenditure, it was not possible to know what trend was developing in the total expenditure of education, nor to calculate unit costs per student year by year.[16] Based on the information on public educational expenditure from 1965 to 1979 (Table XIII), educational investment in Korea did not increase markedly although there had been some variations over the years. In terms of the public share of educational expenditure to GNP, Korea was one of the countries which spent the least among certain selected countries (See Appendix Table IV).

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[15] Before it was suspended, the Law on Financial Grants for Local Education provided that 12.98% of internal tax was to be allocated to local education.

[16] The private expenditures were analyzed from the following studies: Yun-Soo Chon et. al., Educational Expenditure as a Yearly Input (Seoul: Central Education Research Institute, 1969); Chung-Il Yun and Jong-Yul Park, Status on and Problems of Education Finance (Seoul: KEDI, 1977).

TABLE XIII

RATES OF PUBLIC EDUCATIONAL EXPENDITURE TO GNP AND GOVERNMENT BUDGET, 1965-79

(Unit, Million Won)

Year	GNP (A)	Government Budget (B)	Public Ed. Expenditure (C)	C/A (%)	C/B (%)
1965	805,700	94,652	14,623	1.8	17.2
1970	2,684,000	446,273	95,691	3.6	21.4
1975	9,792,900	1,586,931	220,282	2.2	13.9
1976	13,272,600	2,258,512	399,462	3.1	17.7
1977	17,021,400	2,869,956	452,153	2.7	15.8
1978	22,917,600	3,517,038	616,418	2.7	17.5
1979	29,072,100	5,213,436	978,743	3.4	18.8

Source: Unesco, Statistical Yearbook, 1974-84; Korean Educational Development Institute, Educational Indicators of Korea (Educational Information & Resource Material 84-1) (Seoul: KEDI, 1984), pp. 111, 126-127.

In comparison with the results and the goal/targets of Long-Term Comprehension Educational Plan (1972-86), it is clear that the educational investment in Korea was not enough to bring any qualitative improvement of education. The actual outcomes of the public educational expenditure had never reached the goal/targets during the 1970s. It may also be worthwhile to note that the distribution of the public educational expenditure was focused on raising the expenses in personnel instead of improving operations and facilities (See Appendix Table V).

An examination of the expected and actual performance of the educational system with special reference to student enrollment revealed two concluding points: first, with few exceptions, the actual outcomes of the quantitative growth exceeded the goal/targets set forth in the educational plan under the Park regime; and second, in general, the improvement of educational conditions had not been realized when measured by student/teacher ratio, class size, and educational investment.

Achievement of the Underlying Assumptions

As discussed in Chapter IV, the underlying assumption of the goal/targets of student enrollments was to ensure an equalization of educational opportunity and matching manpower demand and supply. In this section analysis will be focused on whether the underlying assumptions had been actually realized as anticipated in the educational plans.

Unequal Distribution of Educational Opportunity

The concept of equality of educational opportunities has been employed in a variety of ways.[17] In general, equality of educational opportunity includes not only equal chances of access to education but also to equal quality of education. In this study, however, the concept of equality of educational opportunity is employed relatively narrowly meaning access to schooling. That is because the major concern of this study is to examine whether the expansion of educational opportunities had the equalizing effects anticipated by the educational planners, or whether newly created educational opportunities remained restricted to certain socio-economic status groups.

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[17] Three dimensions of educational equality have usually been mentioned: (1) equality of access, (2) equality of achievement, and (3) equality of results.

Access measures the proportion of the members of an eligible group that enrolls in a particular educational level or program. This dimension of educational equality ideally requires that participation rates at each educational level should be equal among the various groups in a society. In Korea, as indicated earlier in Chapter IV, the main interest was focused on distribution of enrollment rates according to sex, region and socio-economic background. So, this study used these three aspects in analyzing the equalization of educational opportunity.

Sex Disparity

As discussed in the previous section (Ref. Table X), the ratio of enrollments to the corresponding age groups in the population amounted to 98.4 percent for elementary schools as of 1979. The ratio of advancement from elementary to middle school, and middle to high school were 93.4 and 81.0 percent respectively. As a result, inequality in the enrollment or advancement ratios could largely be ignored in the stage of primary and secondary education level. In contrast, however, the advancement ratio from high school to higher educational institutes was only 40.8 percent. Therefore, a question which arises was "How was the limited higher educational opportunity distributed between males and females?"

As shown in Table XIV, Korea had fairly equal participation between the sexes at the primary and secondary level of education; however, at the third level, females were under-represented as compared with males, except in junior college and junior teachers' college.

TABLE XIV

PROPORTION OF FEMALE STUDENTS, 1961-79

(unit, %)

Type of School	1961	1966	1971	1976	1979
Elementary School	45.9	47.5	48.0	48.5	48.5
Middle School	24.7	36.3	39.1	43.1	46.0
High School	26.2	33.9	37.9	38.3	42.9
Academic	38.2[a]	42.1	44.9	41.3	45.0
Vocational	9.9[a]	21.7	30.1	34.0	40.2
Higher Educational	18.5[b]	24.3	24.8	26.6	24.2
Institution	31.6[b]	29.9	23.7	30.1	27.2
Junior Colleges	2.8[b]	3.6	3.6	3.6	2.0
Junior Technical	-	-	35.8	30.4	24.3
Junior Vocational	32.4[b]	43.3	49.4	63.2	52.5
Junior College	33.8[b]	36.0	52.7	61.6	76.3
Junior Teachers	18.8[b]	22.7	23.2	26.2	23.4
College & University					
Seoul Natl. University	13.3	13.9	14.5	13.5	14.2

Source: Ministry of Education, The Statistical Yearbook of Education of Corresponding Years; Seoul National University, Annual of S.N.U. of Corresponding Years.

Note: a. 1962 statistics

b. 1963 statistics

- Schools were not established in 1961 and 1966

A critical sex disparity was found in the junior technical college and senior colleges and universities. Moreover in an elite school, such as Seoul National University, the proportion of female students represented under 15 percent of the total of registered students. It appeared that the educational disparity between male and female students had not improved in higher educational institutes for the last 18 years. In considering the general tendency for a rapid increase in the total number of students of higher education, it could be concluded that females have continued to be underprivileged in obtaining equal access to college education.

The other point to be stressed with regard to Korea, as in the many other developing countries, is that the overall sex ratios in higher education generally concealed sizeable sex disparities between different types of institutions and different field of study. The rigidity of the division into male-dominated and female-dominated areas has changed noticeably less than overall participation rates. Table XV shows the proportion of female students registered in college and universities by academic areas from 1961 to 1979 (See Appendix Table VI). There remained significant female under-representation in traditional *men's fields* such as scientific and technical areas, but disproportionately high female enrollments in the traditionally acceptable *women's fields* such as education, the arts, nursing and home economics. The female disadvantage was therefore dual. First, their education was more narrowly concentrated into a limited range of subjects and options. And secondly, the courses in which girls and women were under-represented were those with greater utility and value in the labour market. With unemployment high and access to the job market difficult, these were serious disadvantages.

TABLE XV

THE PROPORTION OF FEMALE STUDENTS REGISTERED IN COLLEGES AND UNIVERSITIES BY ACADEMIC AREAS, 1966-79

(Unit, %)

Academic Areas	1966	1971	1976	1979
General	-	-	40.7	34.1
Linguistics and Literatures	44.1	41.8	36.9	34.3
Arts	64.9	74.7	76.1	77.3
Humanities	36.2	22.4	21.3	19.2
Social Sciences	6.7	9.7	10.5	7.6
Physical Education	21.5	41.8	40.3	47.0
Natural Sciences	37.2	45.9	51.9	48.3
Engineering	0.9	0.7	1.1	1.2
Medical Science and Pharmacy	32.7	34.9	37.1	33.0
Agriculture and Forestry	6.8	8.8	10.2	10.2
Marine and Fishery	0.8	0.7	2.7	3.0
Teacher Training	69.0	49.7	51.7	51.1
Total	22.7	23.2	26.2	23.4

Source: Ministry of Education, Statistical Yearbook of Education (Seoul: Ministry of Education, Republic of Korea) of corresponding years

Note: - General Areas were not specified.

Regional Disparity

Compared with other areas, the subject of regional inequalities has been neglected in Korean research. However, the study of the regional dimension appears both important and useful for at least two reasons: political concern for the national unity and the technical problems in providing a supply of education. According to the verbal statements expressed in the Long-Term Comprehensive Educational Plan (1972-86), all provinces were expected to receive equal educational opportunity as a source of social development (1970:577).

Yet, the provincial differences, which had been improved to some extent, still were not satisfactory. In order to reveal the extent of inequality of educational opportunity among the province and the cities, Table XVI was created. The opportunity of receiving primary education was fairly well distributed throughout the provinces and the cities. At the secondary level, the opportunity which had been maldistributed in 1965 had improved moderately. However, the higher educational opportunity was still overconcentrated in the major cities like Seoul and Pusan. As of 1975, for example, Seoul had 2.5 times more students in higher education compared with its population ratio. On the other hand, Kangwon, Chungchung and Cholla provinces had fewer college and university students compared to their population.

In general, the reduction of inequality in the distribution of higher educational opportunity had progressed for the last 10 years. However, higher educational opportunity in Korea was still concentrated in the central city of Seoul to the disadvantage of regional areas such as Eubs or Myeons (See Table XVI). As of 1980, Seoul had 22% of the country's population; however the percentage of college students in the city was almost 39 percent, which means that Seoul had been favoured 74 percent more than should be expected on the basis of its population. Understandably, however, the rural area or Eub & Myon had been relatively deprived by more than 70 percent of their expected allotment of students in the same year (See Table XVII).

Accordingly, at the level of higher education, a considerable number of students from the rural area had moved into Seoul seeking a better chance of access to tertiary education. In fact, a mobility study found that educational opportunity for parents and their children was one of the major factors in influencing them to move out of the rural areas (D. Y. Kim and H. Y. Lee, 1976: 66).

Essentially, then, we must conclude that the regional difference in Korea were not only extreme but give every indication of persisting over a very long time. Especially, in the case of so-called elite university as against the general institutes of higher education, it was clear that rural students had suffered most from their reduced access to higher education. Table XVIII revealed the proportion of rural students attending Seoul National University. The index of the selection in rural area in 1962 was 35; this decreased to

TABLE XVI

THE INDEX OF EDUCATIONAL OPPORTUNITY AMONG CITIES AND PROVINCES IN 1965 AND 1975

Type of School	Seoul	Pusan	Kyong-Ki	Kang-Won	Chung Buk	Chung Nam	Chun Buk	Chun Nam	Kyong Buk	Kyong Nam	Cheju
Elementary School											
1965	88	98	97	103	104	104	102	101	98	107	83
1975	82	82	91	113	115	108	116	119	93	103	108
Middle School											
1965	131	149	93	74	86	95	98	78	100	109	119
1975	96	92	92	89	105	100	101	99	105	112	110
Academic High School											
1965	203	193	64	48	48	65	80	68	91	54	113
1975	154	102	66	70	82	89	98	84	96	80	92
Vocational High School											
1965	160	181	89	69	105	88	101	64	89	86	118
1975	89	161	119	97	87	77	85	83	104	105	137
College and University											
1965	475	157	23	30	30	34	35	47	63	117	43
1975	255	118	53	42	54	50	53	58	80	35	68

Source: Korean Federation of Association, Study of the Educational System (Seoul: KFEA, 1976) quoted in Korean Educational Development Institute, The Long-Term Prospects for Educational Development 1978-91 (Seoul: KEDI, 1978), P. 170.

Note: The Index of Educational Opportunity = Percentage of Students to the Total Students/Percentage of Population to the Total Population x 100.

TABLE XVII

DISTRIBUTION OF THE STUDENT POPULATION IN CENTRAL CITY AND REGIONAL DISTRICTS

(Unit, %)

Ratio of Population/	Seoul		Eub & Myeon	
Type of School	1970	1980	1970	1980
Ratio of Population	17.6	22.3	58.8	42.7
Elementary School				
Ratio of Student	13.7	20.3	65.3	47.1
Ratio of Advantage	77.8	91.0	111.1	110.3
Middle School				
Ratio of Student	20.4	18.6	49.1	50.2
Ratio of Advantage	116.0	83.4	83.5	117.6
High School				
Ratio of Student	29.1	22.8	29.3	35.3
Ratio of Advantage	165.3	102.2	49.8	82.7
Higher Educational Institutions				
Ratio of Student	52.2	38.9	13.0	12.7
Ratio of Advantage	296.6	174.4	22.1	29.7

Source: Population and Housing Census, 1960; Population Census Report of Korea, 1966; Population and Housing Census Report, 1970, 1975, and 1980.

Note: Ratio of advantage = Ratio of Student/Ratio of Population x 100.

TABLE XVIII

THE PROPORTION OF ELITE UNIVERSITY STUDENTS FROM RURAL DISTRICTS (SEOUL NATIONAL UNIVERSITY): SNU

(unit %)

		1962	1972	1975	1977
Ratio of population in Eup and Myon	(A)	72.0[a]	58.9[b]	51.6	47.9[c]
Ratio of SNU students from Eup and Myon	(B)	25.4	16.1	12.5	15.2
Index of Selection (B/A x 100)		35.2	27.3	24.2	31.7

Source: Student Guidance Center, Seoul National University, Research Review Vol. 10, No. 1, 1973--Vol. 16, No. 1, 1979. Modified from Shin-Il Kim (1985: 161).

Note:
a. 1960
b. 1970
c. Estimate

24 in 1975, and 31 was recorded in 1977. Based on one case study, it was difficult to generalize about the possible reduction in the proportion of the students in rural districts attending higher education institutions during this period. However, this data deserves more attention because of the decrease in percentage of rural students in a distinguished elite university.

Socio-economic Disparity

The last issue pertaining to the distribution of educational opportunity is the extent to which children from different social backgrounds were successful in securing higher education. Disparity rooted in socio-economic status was clearly the most fundamental and wide-spread one at all educational levels, and especially in higher education in both developing and developed countries. Until recently, however, the Korean government did not collect data relevant to this question, making it difficult to arrive at a very satisfactory answer. There were few available case studies published by the universities, along with some data from respondents about their socio-economic background done through the social surveys from time to time. Therefore, the question may be addressed indirectly by examining the secondary data mentioned above.

It is one of the accepted fallacies of current educational thought that fairness rests upon meritocracy. In fact, the distribution of educational opportunity, particularly at the higher level, was highly based on socio-economic status. Table XIX reflects how enrollment rates at higher educational institutions related to the parents' income level. The households whose incomes were less than 60,000 won per annum sent their children to higher educational institutions far less than the general population. In contrast, the group with an income of more than 60,000 won occupied far more educational places than their representation in the population. The families which earned more than 150,000 won constituted only 3.8 percent of the total

TABLE XIX

THE ENROLMENT RATE IN HIGHER EDUCATIONAL INSTITUTE BY INCOME AND REGION (1974)

Classification	0	Less than 30,000 Won	30,000- 60,000 Won	60,000- 100,000 Won	100,000- 150,000 Won	More than 150,000 Won		Total (N)
National								
Ratio of Households	0.5	23.1	44.2	21.4	7.0	3.8	100	(1,306,890)
Ratio of Students	0.7	4.5	26.3	28.6	20.6	19.3	100	(108,477)
Ratio of Advantages	71.4	19.5	59.5	133.6	294.2	507.9		
Urban								
Ratio of Households	0.8	15.2	44.1	24.7	9.5	5.7	100	(652,693)
Ratio of Students	0.8	3.3	25.6	28.4	21.5	20.4	100	(98,071)
Ratio of Advantages	100.0	21.7	58.0	115.0	226.3	357.9		
Rural								
Ratio of Households	0.2	31.0	44.3	18.1	4.5	1.9	100	(654,197)
Ratio of Students	0.0	15.4	33.2	29.8	13.0	8.6	100	(10,406)
Ratio of Advantages	0.0	49.7	74.9	164.6	288.9	452.6		

Source: Adapted from Mu-Ki Bai, "Educational Investment and Income Distribution" in Hak-Joong Chu (ed.), Income Distribution and Determinants in Korea (Seoul: Korea Development Institute, 1979), pp. 323-411.

Note: a. The households with children aged 18-21 years.
b. The ratio of advantage = Ratio of students/Ratio of Households x 100.

population. However, their children held more than 19 percent of the total places in higher educational institutions--5 times more than the portion of their population. This fact indicates that the economic factor was very important for admission to higher education institutions.

Another point to which attention should be drawn was the disparity between urban and rural sectors of the population in terms of their attendance at colleges and universities. Even among those in the same income brackets of enrollment ratio were higher in the urban than in the rural areas.

Educational opportunities in the country therefore varied widely depending upon householders' incomes. Children of the elite have always had the best education and, thus, have had opportunity for further gain. As shown in Table XX, administrative and managerial workers were highest in the score of "ratio of advantage" (522). Professional, technical and related workers (371), and clerical workers (293) were next in position. In contrast, children from blue collar backgrounds such as production and transportation workers were the lowest in the ratio at 19. Similar results were found in national data in a study, Welfare Consciousness of Korean People, conducted by Y. M. Kim in 1979 (KCUE, 1983: 122).

The two tables above show that there have been significant differences in the extent to which specific classes had responded to the availability of educational opportunities. However, these tables do not tell us about

TABLE XX

THE ENROLMENT RATE IN HIGHER EDUCATION INSTITUTES BY HOUSEHOLDER'S OCCUPATION (1974)

(Unit, %)

Occupation	Households Number	Households Ratio	Students Number	Students Ratio	Ratio of Advantage
Professional, Technical, and Related Workers	38,411	3.4	11,914	12.6	370.6
Administrative, Managerial Workers	19,998	1.8	8,911	9.4	522.2
Clerical Workers	78,946	7.0	19,335	20.5	292.9
Sales Workers	174,636	15.5	20,875	22.1	142.6
Service Workers	53,927	4.8	6,809	7.2	150.0
Farming & Other Primary Workers	535,045	47.6	8,720	9.2	19.3
Production and Transportation Workers, Labour and Others	222,231	19.8	17,836	18.9	95.5
Total	1,123,215	99.9	94,400	99.9	

Source: Same as in Table XIX.

long-term trends in educational attainment among the differing socio-economic differentiated groups. In other words, it is more important to answer the question "To what extent has the gap separating the children of the elite from the rest narrowed or widened in terms of their access to higher education?" According to Table XXI, the white-collar group provided proportionally more students attending higher educational institutions than any other group. The trend has continued for the last ten years between the 1960s and 1970s. In the case of the *self-employed* group the proportion of the children enrolled as university students increased due to a decrease of population in this group. In contrast, the proportion of the laborers' children in the higher educational institutions was extremely small in relation to their representation in the population and negligible in 1970. As a result, the detrimental effects of low class family background on educational opportunity have shown no sign of diminishing in Korea, and there might even be a slight upward trend at least for the period under research.

Moreover, the occupational status of the students differed according to the types of institutions, i.e., so-called *first-rate* or *second-rate* schools. Based on the available data, it is obvious that the percentage of students whose fathers were farmers was more than 40 percent in a local university. However, the percentage of children of farmers in

TABLE XXI

EDUCATIONAL OPPORTUNITY BY OCCUPATIONAL STATUS BETWEEN THE 1960S AND 1970S

(unit, %)

Classification	Self-Employed	White Collar	Laborers	Others	Total	Survey Year
1960s						
Ratio of Population	66.6	7.4	25.0	1.0	100.0	1960
Middle School	42.1	53.5	-	4.4	100.0	1959
High School	57.3	34.7	0.4	7.2	99.6	1960
University	61.0	32.1	0.5	6.4	100.0	1962
1970s						
Ratio of Population	50.8	10.3	38.9	-	100.0	1971
Middle School	44.2	53.1	-	2.7	100.0	1969
High School	45.4	44.1	0.1	10.4	100.0	1970
University	49.5	43.4	-	7.1	100.0	1970

Source: Adapted from Young-Mo Kim (1982: 490); KCUE (1983: 18).

Note: The data were collected from the so-called *elite schools* as follows: Kyongki, Kyongbok, Pusan, Kyongnam, Taejon, Kwangju-il, and Jeonju; Seoul National University, Korea University, and Yonse University.
- Figures were not available.

elite universities such as Seoul National University was below 10 percent. There was also a big difference between central universities and private universities, and between public and private universities (Korean Council for University Education, 1983: 123).

Table XXII compares the proportion of population engaged by various industries with children in the so-called *elite schools* between 1960s and 1970s. First of all, the percentage of students in high school and university whose parents were employed in the agricultural sector were relatively lower than their proportion of the population. The labourers were in the same situation. On the other hand, the percentage of children

TABLE XXII

EDUCATIONAL OPPORTUNITY AMONG WORKERS IN VARIOUS INDUSTRIES BETWEEN 1960 AND 1970

(Unit, %)

Classification	Agri-culture	Com-merce	Indus-try	Mining	Bldg. Indus-try	Trans-porta-tion	Prof. Free-lancer	Manag. Clerical	Labor	Other Ser-vice	Total
1960s											
Ratio of Population	65.4	8.3	6.9	0.6	-	3.1	2.4	3.9	9.5	6.8	100
Middle School	1.5	31.1	6.0	1.1	1.2	1.2	8.7	44.8	-	4.4	100
High School	16.5	32.4	5.4	0.4	1.0	1.2	5.8	29.3	0.4	7.2	100
University	19.1	34.0	5.4	0.4	1.4	0.9	2.1	30.0	0.5	6.2	100
1970s											
Ratio of Population	50.3	12.3	-	-	-	-	→ 10.6	←	26.8	-	100
Middle School	1.8	31.5	5.6	1.0	2.4	1.9	6.1	46.0	-	2.7	100
High School	9.2	29.5	4.3	0.7	0.8	0.7	6.1	38.0	10.1	10.4	100
University	14.4	21.3	10.1	0.8	1.3	1.6	9.5	33.9	-	7.5	100

Source: Same as in Table XXI.
Note: Same as in Table XXI.

in these institutions whose parents were working in commerce, in professional self-employment and managerial office work was high in comparison with the general population. The children whose parents were from white collar occupations increased remarkably for 10 years during the 1960s. These changes in general partly reflect the shift of industrial structure in Korea and the concentration of educational opportunity in the middle class. This trend has not improved for the period under study. It is safe to say that there has been a deterioration in this situation as far as the lower socio-economic groups are concerned.

The next issue of concern was with the distribution of educational opportunity according to the parents' educational level. Table XXIII revealed the education level of the freshman's parents/guardians of the Seoul National University.

As of 1979, the parents/guardians with more than college level of education (included dropouts) composed about 42 percent of those whose children were attending Seoul National University. The percentage was extremely high considering the fact that people with college level education or more was only 11 percent of the population (at the age of 40 years or more). In this case, the selection index was 380 percent, which means a critically biased distribution of educational opportunity by the parents/guardians' level of education. This data from a study of students at the Seoul National University in Korea showed that the children of parents with basic University

TABLE XXIII

EDUCATIONAL LEVEL OF PARENTS/GUARDIANS, SEOUL NATIONAL UNIVERSITY

	1975	1976	1977	1979
No Schooling	0.9	2.2	1.9	2.8
Elementary School	9.6	13.0	14.2	15.7
Middle School	12.9	14.4	14.4	11.7
High School	30.7	28.1	28.2	24.7
University	36.7	37.4	35.5	41.6
Post-Graduate School	2.9	2.8	3.5	-
No Response	6.2	2.2	2.3	3.4
Total (N)	(2,856)	(2,611)	(3,216)	(3,330)

Source: Student Guide Center, Seoul National University, Research Review Vol. 15, No. 1, 1978; Vol. 15, No.2, 1979; Vol. 16, No. 1, 1979.

education or more were represented 15 times more than children of parents with no schooling.

The data above shows how educational opportunities were distributed according to the level of socio-economic differentiation of parents in Korea. Some of the data were national ones and the others were based on samples of a few universities or survey results of a single university. So, it may be difficult to generalize on a nation-wide basis from these data. However, they can be the basis for asserting that there is a substantially uneven distribution of educational opportunity, especially in higher education among children of different socio-economic groups. Simply, it could be concluded that the gap in educational opportunities between the upper class and the under-privileged students in Korea remains very marked. There is a close correspondence between social background of students and the level of education they receive. Furthermore, within the institutions, there is a correspondence between the social background and a student's chosen discipline.

To summarize, unlike the assumptions of educational planners, the quantitative growth of educational opportunity did not bring equalization of educational opportunity automatically. The available evidence left no doubt that the wide-spread educational disparities--tied especially to sex, geographical location, and to socio-economic status--still exist in Korea and, most pronouncedly, in the universities. In spite of all the examinations and all the changes made therein, the benefits went mainly to the upper and middle classes in urban areas. The educational expansion made a marginal contribution to the majority of the lower class and especially those from the rural areas and the poor.

Mismatch Between Manpower Demand and Supply

As indicated in Chapter IV, the underlying assumption of the increased student enrollment projected in educational plans was that there would be a match between manpower demand and supply. A major task of this section was to examine to what extent the underlying assumption had been realized. In examining the data, it was found that there were two types of mismatch between manpower demand and supply: (1) an oversupply of the educated manpower which created unemployment and underemployment;[18] and (2) a structural imbalance, in which the types of work which people were willing and able to do did not match the pattern of opportunities.[19]

Oversupply of the Educated Manpower

Full employment of available human resources is not only important for the economic and social well-being of the individual workers, but is also an important goal of the economy in its drive for a high rate of development. But absolute equilibrium between human resources and the needs for manpower was scarcely attainable. Table XXIV shows that the unemployment rates during the 1960s and 1970s had been diminished both in rural and urban areas in Korea. The unemployment rates of urban areas were relatively high compared with the rural areas and their decreasing tendency reversed somewhat in the 1970s. Especially, after 1974, the unemployment rates were again increased due to the oil crisis.

As Table XXIV indicates, official statistics do not show a high rate of unemployment. With an unemployment rate of

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[18] It assumes that the labor force is the labor supply, the employed is the labor demand, and the unemployed is the surplus of supply over demand.

[19] This arises because the opportunities for additional work occur at the wrong season or in the wrong place, require special skills, compared with what the various type of labour can offer, or carry lower income or status than people will accept.

TABLE XXIV

UNEMPLOYMENT RATES IN KOREA, 1960-80

(unit, %)

Census Report[a]		1960	1966	1970	1975	1980
Whole Country	MF	6.8	8.0	2.2	5.0	6.7
	M	7.0	9.2	2.6	5.8	6.7
	F	6.2	5.3	1.4	3.8	6.7
Si (City)	MF	17.1	16.6	4.6	9.4	10.1
	M	17.4	17.4	4.9	9.6	9.5
	F	16.1	14.1	3.8	8.9	11.5
Gun (Country)	MF	3.5	3.8	0.7	1.7	3.0
	M	3.4	4.8	0.9	2.3	3.1
	F	3.6	1.9	0.3	1.0	2.8
EAP Survey[b]		1963	1966	1971	1976	1979
Whole Country	MF	8.2	7.1	4.5	3.9	3.8
	M	8.7	8.1	5.2	5.0	4.7
	F	7.2	5.3	3.2	2.0	2.4
Farm	MF	2.9	3.1	1.5	1.0	0.9
	M	3.3	3.9	1.7	1.2	1.2
	F	2.1	1.7	1.2	0.6	0.4
Non-Farm	MF	16.4	12.8	7.4	6.3	5.6
	M	16.5	13.3	8.1	7.7	6.5
	F	16.3	11.5	5.7	3.4	4.0

Source: Population and Housing Census Report, 1960; Population Census Report, 1966; Population and Housing Census Report, 1970, 1975, and 1980; Annual Report on the Economically Active Population (EAP) 1963, 1966-79.

Note:
- a. Based on the date of census (Dec. 1, 1960); October 1, 1966, 1970, 1975, and 1980.
- b. Represents average of quarterly survey results of each year.
- c. M: Male; F: Female.

only 4-5 percent, it might be hard to understand why there would be an excess of labor in Korea. This suggestion is simply because even in industrialized countries with a high rate of employment, there is a certain amount of frictional unemployment. Hence, it is generally agreed that three percent or less of unemployment means full employment.

However, there has remained a considerable excess of labor in the form of *open unemployment* or underemployment in Korea.

Then, the question which arises is "Did the unemployment rates reflect the reality of unemployment in Korea?" In order to answer the question, it was necessary to examine the definition of unemployment in Korea. In both the EAP survey and the census, Korea had used the Labor Force Approach in which the employed were defined as "those who worked at least one hour in the week preceding enumeration for pay or profit, or in a household enterprise without pay." Farmers (including landless laborers as well as land holders) waiting for harvest planting were considered employed even if they did not work the one hour; tradesmen and professionals who maintained a practice were also considered employed. On the other hand, the unemployed were classified as those who had ability and intention to work but who could not participate in work for pay or profit and therefore were seeking employment. Those who could not join the work force due to bad weather, standby status, temporary illness and abandonment of employment, etc. were also considered "unemployed."

This definition of *employed* was used so loosely that it resulted in figures which showed a low rate of unemployment. This definition of employment might be appropriate to highly industrialized countries, but it is difficult to apply to countries like Korea where there is a lot of unskilled industrial workers in the tertiary sector. In other words, the definition of the unemployed is a very narrow one and does not include the total of unemployed in a general sense. More specifically, the approach presents problems in computing the unemployed for the following two reasons. First, the unemployment rate figures excluded about 43 percent of the population over 14 years of age who were not among the "not economically active population"--i.e. they were neither employed nor unemployed during the reference week. However, it was questionable why nearly half of the population over 14 could not work for wages. Second, people who were "economically active" were considered employed if they had *regularly* (sic) worked at least one hour during the week of survey. Yet, one hour of work was hardly enough for a person to be considered fully employed.

Therefore, the unemployment among the educated durnig the period of the 1960s and 1970s, which is the major concern of this study, must be seen as an integral part of the overall problem of a definition of unemployment in Korea. As C. J. Lee (1980:50-51) pointed out in the Statistical Year Book of Education in Korea, the major source of officially aggregated employment data of the school graduates would be one of the government statistics with least credibility. The Ministry of Education collects the information on the employment status of the graduates based on the reports from the schools three months after graduation.

Although there were such limitations in the government data, Table XXV suggests some interesting points. In general the employment rates at the various education levels improved considerably between 1963 and 1979, but unemployment rates were still high. A considerable improvement had occurred among the graduates of the vocational high schools, the senior colleges and the universities. Greater discrepancy was found between manpower demand and supply from academic high school and junior college graduates. The last point to make clear was that the employment rates of college and university graduates were always higher than for people in the lower levels of education during the entire periods.

The issue to which attention will next be directed was whether the general improvement of the state of employment reduced *unemployment* among the educated in Korea. In so far as it was not essential for the performance of the jobs they held, education of a large majority of the graduates could be regarded as unproductive in a narrow economic sense. Unfortunately, however, since the data concerning the employment state of the educated by occupation were not available, there was no other way to examine this issue except to rely on indirect information available.

The industrial and occupational structure of the economically active population during the period of the 1960s

TABLE XXV
EMPLOYMENT RATES AMONG THE GRADUATES FROM VARIOUS TYPES OF EDUCATIONAL INSTITUTIONS, 1963-79

(Unit, %)

Type of School	1963	1966	1971	1976	1979
Academic High School					
Graduates	48,979	76,224	93,699	173,016	257,919
Employed	4,766	8,627	9,301	18,160	31,640
Employment Rate	9.7	11.3	9.9	10.5	12.3
Vocational High School					
Graduates	27,092	53,077	80,173	137,103	181,929
Employed	7,303	19,913	39,685	72,338	110,908
Employment Rate	27.0	37.5	49.5	52.8	61.0
Junior Colleges					
Graduates	1,052	7,758	5,469	18,707	39,630
Employed	259	3,456	2,736	8,493	16,733
Employment Rate	24.6	44.5	50.0	45.4	42.2
College & University					
Graduates	17,966	22,116	27,168	34,725	45,424
Employed	7,933	10,084	14,448	21,299	29,378
Employment Rate	50.6	67.3	73.7	80.6	84.8

Source: Statistical Yearbook of Education of corresponding years.
Note: Junior Colleges include all type of 2-year higher educational institutes such as junior technical and vocational.
Employment Rate (%) = Employed/Graduates x 100.

and 1970s is given in Tables XXVI and XXVII. The proportion of workers in agriculture, forestry and fishing industry decreased from 65.9 percent in 1960, 50.8 percent in 1970, and 37.8 percent in 1980. On the other hand, the percentage in the manufacturing field increased from 6.8 percent in 1960, 14.3 percent in 1970 and 22.1 percent in 1980.

In the occupational structure, the percentage of professional and technical workers in the work force nearly doubled and the percentage of clerical workers more than tripled. In addition, the percentage of the work force who

TABLE XXVI

INDUSTRIAL STRUCTURE OF THE ECONOMICALLY ACTIVE POPULATION, 1963-80

[unit, %; ( ) in thousands]

Industry	Total 1960	Total 1970	Total 1980	Male 1960	Male 1970	Male 1980	Female 1960	Female 1970	Female 1980
Agriculture, Forestry, Hunting & Fishing	65.9	50.8	37.8	64.4	45.9	32.8	69.6	59.7	46.5
Mining	0.7	1.0	0.7	0.9	1.4	1.1	0.1	0.2	0.0
Manufacturing	6.8	14.3	22.1	7.0	14.1	22.2	0.3	14.5	21.8
Construction	1.7	4.5	5.2	2.4	6.7	7.7	0.1	0.6	0.9
Electricity, Gas, Water & Sanitary Services	0.2	0.3	0.3	0.3	0.5	0.4	0.0	0.1	0.1
Commerce	8.3	12.6	18.5	7.9	12.0	17.5	9.3	13.7	20.2
Transportation, Storage, and Communication	2.1	3.2	4.3	2.9	4.6	6.0	0.2	0.7	1.7
Services	13.4	13.0	11.1	13.5	14.4	12.3	13.1	10.4	8.9
Activities not adequately described	0.0	0.2	0.0	0.0	0.3	0.0	0.0	0.1	0.0
Unknown	0.9	0.1	–	–	0.1	–	1.3	0.0	–
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.1
(N)	(7,028)	(10,153)	(12,682)	(5,006)	(6,578)	(8,044)	(2,022)	(3,575)	(4,638)

Source: Population and Housing Census, 1960; Population Census Report, 1966; Population and Housing Census Report, 1970 and 1980.

TABLE XXVII

OCCUPATIONAL STRUCTURE OF THE ECONOMICALLY ACTIVE POPULATION
1960-80

[unit, %; ( ) in thousands]

Occupation	Total			Male			Female		
	1960	1970	1980	1960	1970	1980	1960	1970	1980
Prof. & Technical Workers	2.4	3.2	4.6	2.7	3.8	5.2	1.5	2.1	3.5
Admin. & Manag. Workers	1.3	0.9	1.1	1.5	1.4	1.6	0.8	0.1	0.0
Clerical Workers	2.6	5.8	9.5	3.4	7.5	10.1	0.5	2.8	8.6
Sales Workers	8.2	10.1	12.1	7.7	10.4	12.3	9.6	9.6	11.6
Service Workers	5.9	6.7	7.1	4.4	4.5	5.4	9.6	10.8	9.9
Farming & Other Primary Workers	65.6	50.7	37.6	64.0	45.8	32.5	69.9	59.7	46.4
Prod. & Transport. Workers Laborers & Others	13.2	21.6	28.1	15.6	25.4	32.9	7.7	14.7	19.9
Not Classifialble	0.0	0.8	0.0	0.0	1.1	0.0	0.0	0.2	0.0
Unknown	0.8	0.1	0.1	0.7	0.1	0.0	0.7	0.0	0.0
Total	100.0	99.9	100.1	100.0	100.0	100.0	100.0	100.0	99.9
(N)	(7,028)	(10,153)	(12,682)	(5,006)	(6,578)	(8,044)	(2,022)	(3,575)	(4,638)

Source: Same as in Table XXVI.

were the sales workers increased from 8.2 percent in 1960 to 12.1 percent in 1980. However, the most rapid expansion took place in production workers. In 1960, they constituted only 13.2 percent of the total labor force, but in 1980 they composed 28.1 percent of the total labor force and 48.7 percent of the non-farm labor force. Nearly half of the total labor force could be described as belonging to the working class. On the other hand, the percentage of the farming and other primary workers rapidly decreased from 65.6 percent in 1960 to 37.6 percent in 1980. This change was no doubt a direct consequence of tremendous job expansion in the labor-intensive export sector and was made possible by drawing a huge number of migrant workers from the rural hinterland.

Of particular importance was the spectacular increase of female workers in factory employment. Between 1960 and 1980, their numbers in the production and transportation sectors increased from 7.7 percent to 19.9 percent, and this increase surpassed the increase of male workers in the same category. While male laborers in this occupational category increased by 339 percent, female laborers increased by 592 percent in the period. In the 1960s and 1970s, about one out of every three production related workers was a woman.

Generally, it might be said that the major industry base was changed from primary production to secondary production, and the occupational structure also followed the same pattern. In contrast to the rapid expansion of the production workers, the professional and technical workers increased much more slowly, and the administrative and managerial workers even showed a decrease in their percentage in the total labor force. Of course, this was a common feature of the so-called *dependent industrialization* in Asia and Latin America.[20]

This phenomenon was comparable with the trends of educational expansion, especially the growth of enrollment in the secondary and higher educational institutes. As shown in a former section of this chapter, the rapid expansion of enrollment in secondary and higher education was far faster than that of the needs of the upper levels of the occupational structure which would reproduce the type of jobs these graduates would expect to hold. This provides a clue that the changes between educational and occupational structure did not match properly. In other words, the enrollment of secondary and higher educational institutes expanded rapidly; however, the corresponding occupational structure in which they were likely to be employed showed remarkably slow change.

In order to trace the issue of over-education or underemployment more specifically, Table XXVIII was prepared and was based on the data from The Population and Housing

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[20] Not only in Korea but also in Taiwan and Singapore and in Mexico and Brazil, this new industrialization has mobilized a great number of young female workers for labor intensive, export-oriented production. It seems that the combination of foreign capital and young domestic female labor is the key to successful dependent development in the Third World.

TABLE XXVIII

OCCUPATIONAL STRUCTURE OF THE HIGHER EDUCATION ATTAINERS BETWEEN 1970 AND 1980

(Unit, %; ( ) in thousands)

Occupation	Total 1970	Total 1980	Male 1970	Male 1980	Female 1970	Female 1980
Prof. & Technical Workers	29.9	35.8	26.9	30.3	60.9	70.6
Admin. Manag. Workers	6.4	7.0	6.9	8.1	0.8	0.5
Clerical Workers	31.3	28.7	32.4	31.0	19.7	14.3
Sales Workers	12.4	11.8	12.9	12.7	7.2	6.5
Service Workers	4.3	4.1	4.2	3.9	5.3	4.7
Farming & Other Primary Workers	4.8	3.1	5.1	3.4	1.9	1.1
Prod. & Transport. Workers Laborers & Others	10.9	9.6	11.6	10.6	4.1	2.4
Total	100.0	100.1	100.0	100.0	99.9	100.1
(N)	(599)	(1,148)	(545)	(993)	(54)	(155)

Source: Population and Housing Census Report, 1970 and 1980.

Census Report of Korea in 1970 and 1980.[21] Generally, in Korea, those who had successfully completed a higher education program were expected to take the upper three levels of occupation such as those in professional and technical, the administrative and managerial, and some clerical fields of employment.[22] As shown in Table XXVIII, however, there was an increase in the percentage of professional and technical workers (5.9%) and a slight increase in administrative and managerial workers (0.6%), and a 2.6 percent decrease in the clerical workers among the total labor force in Korea during 1970 and 1980. On the other hand, the proportion of workers in other occupations had decreased in such fields as sales, service, farming and production workers, etc. Of particular importance was the high proportion of female workers in the professional and technical occupations compared to male workers. This was largely due to the high proportion of female teachers in Korea.

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[21] The data were not available in The Population and Housing Census Report for 1960.

[22] For example, D. S. Hong (1983) calculated the statistical medians of educational year for 28 occupations represented in the Population survey. According to his classification, the credential of higher education was required for the upper three kinds of occupation, and secondary education for the sales, service, farming, and production and transportation work.

Table XXVIII, however, does not give the occupational status of higher educational attainers who had newly entered the labor force because of the aggregated data. In order to identify the underemployment of the higher educational attainers, it would be necessary to include a cross table dealing with the occupational structure, educational level and age of the labor force. However, these kind of data were not available in Korea.

To throw some light on the problem of employment among the young, it was necessary to include a cross table dealing with the occupation structure of the labor force for those between the ages of 25 and 34. The Population and Housing Report dealt with the occupational structure of the economically active population by age and sex (See Appendix Tables VII, VIII, and XIX). The report classified the data based on age into four categories, those between 14-24, 25-34, 35-44 years and those over 45 years of age.

From these groups, Table XXIX was developed. It examines the occupational distribution of workers 25-34 years of age between 1970 and 1980. It reveals that in Korea, males were more permanently employment after graduation from higher educational institutions when they were about 26 to 29 years of age (females tend to be 2 to 3 years younger than males at graduation). Therefore, it was worthwhile to compare the proportion of the occupational distribution of those belonging to the 25-34 age group to examine how the occupational structure reacted to the supply of higher education graduates. As shown Table XXIX, for those aged 25 to 34 years, there was an overall decrease in the population belonging to the categories of professional and technical (1%), administrative and management (4.6%), and clerical (5.7%). As indicated earlier, these fields jobs were generally regarded as appropriate ones for college degree holders. On the other hand, their proportion in the other occupations, for example, sales and service sectors increased by 0.8 percent and 3.9 percent respectively.

What did these facts reveal? They show that in spite of the limitations of the aggregated data indicated earlier, there had been underemployment or oversupply of manpower to the limited slots in the top levels of the occupational structure. As a result, young people (25 to 34 years of age)

TABLE XXIX

OCCUPATIONAL STRUCTURE OF THE POPULATION AGED 25-34 YEARS BETWEEN 1970 AND 1980

(Unit, %)

	Total		Male		Female	
Occupation	1970	1980	1970	1980	1970	1980
Prof. & Technical Workers	38.7	37.7	40.1	37.7	33.4	37.6
Admin. Manag. Workers	23.2	18.6	22.9	18.5	32.6	22.4
Clerical Workers	40.0	34.3	45.0	44.4	15.5	14.0
Sales Workers	29.8	30.6	32.5	33.2	24.6	25.9
Service Workers	23.2	27.1	32.3	31.1	16.2	23.2
Farming & Other Primary Workers	22.2	16.7	22.0	17.0	22.5	16.3
Prod. & Transport. Workers Laborers & Others	30.0	31.2	35.4	38.4	13.0	10.5
Not Classifiable	46.4	100.0	48.4	100.0	19.0	100.0
Average	26.5	25.8	29.7	30.6	20.7	17.5

Source: Based on Appendix Tables VII, VIII, and IX.

who had the qualifications for a higher level of occupation were forced to move to lower levels of occupations. The higher level occupations which were already filled with qualified people were characterized by little, if any, movement, and their structure had not changed despite the expansion of higher education for the period.

Structural Imbalances

In the unemployment/underemployment situation discussed above, there has been also the problem of shortage of manpower in Korea. The short supply of manpower started among the skilled technicians who were generally supplied from the vocational high school, especially, technical high schools

(See Table XXX). In the case of craftsmen, a certificate that they were technical high school graduates was required. The deficiency rates were 11.8 percent in 1970 and 21.5 percent in 1972. There was also a shortage by about 11.5 percent of skilled workers who practised more than a year. M. S. Kim discussed this problem of deficiency in the following manner:

> It would be ironical that Korea known as densely populated country with highly educated labor force had been troubled with shortage of human resources for the last years. Since the late years of the first five-year economic development plan, the government was very sensitive to meet the situation and include the development of human resource as a essential factor for the second five-year plan (quoted in M. S. Kim, 1985: 74).

As a consequence the shortage of manpower was mainly caused by the failure of manpower supply from the vocational high school, particularly technical high school to meet the manpower demand for the rapid economic growth.

The failure of the technical high school to provide sufficient labor force for the economic development would explain why the government was rushed to enact the so-called "Law of Emergency Measures Concerning Job-Training." According to this Law, the government imposed the duty of job-training on the employers who had more than 200 employees or employed more than 60,000 workers in total for the last year. It was possible to train the workers at the company, individually or with others, and even entrust their training to the job training centers. The expenses were to be borne by their company, but the trainees were expected to work as assigned by

TABLE XXX

THE AREAS AND PROFICIENCY IN THE SHORTAGE OF SKILLED WORKERS (1972)

(unit, %)

Areas of Worker	1970	1971	1972
Clerical Salesman	-	-	5.4
Production Worker	10.3	12.0	11.3
Technicians	10.3	21.9	18.2
Craftsmen	11.8	20.6	21.5
Proficiency of Workers			
Skilled Workers[a]	8.9	10.9	11.5
Unskilled Workers[b]	2.7	9.6	8.1
Apprentices[c]	9.9	13.1	4.0

Source: Industrial Bank of Korea, Annual Survey of Small to Medium-Sized Enterprise (Seoul: Industrial Bank of Korea) 1972, modified from Economy of Korea (Seoul: Hanwool, 1983), p. 203.

Note:
a. Workers who had practiced more than a year.
b. Workers who had practiced from six months to a year.
c. Apprentices were below six months of practice.

the employers. Although the law was impractical to apply to small or medium sized companies, it showed vividly how serious the shortage of skilled workers was in Korea.

Since 1976 there had been also a critical problem of labor shortage in certain occupations. A dispute continued, without reliable information, over the extent to which imbalances existed, between the new demand and supply of the high level manpower in any industry and occupation. In any case, the rising starting salaries for college graduates was an indication of the shortage of high level manpower.

Unlike most of developed countries, the labor statistics in Korea did not include the initial salary by education level. According to the unofficial data survey through interview conducted by mass media, the initial salary of the college graduates had increased 33.1 percent in 1977 as compared to that of 1976.[23] The Korean Managers' Association surveyed companies employing more than 40 persons as of May 30, 1977, and announced that the wages of the college graduates were raised 26.0 percent in the same period. The results indicated that the wages for high school and middle school graduates were raised 22.3 percent and 22.4 percent respectively.

Considerable variations were found by industry with manufacturing recording a 26.0 percent increase and construction recording a 39.2 percent increase. There were complaints from the industry regarding a severe shortage of university graduates resulting in competitive scouting for university graduates which became a widespread practice among companies.

As a result, the Korea Comprehensive Traders' Association agreed to control the starting salary of the college graduates at 150,000 won per month and no more than 175,000 won per month in the next year. The agreement, on the surface at least, was based on the limited supply of high level manpower compared to the rapid increase in the demand for such workers which was resulting in a high rate of increase of starting wages of university graduates. The following reasons for the wage control were stated:

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[23] Between the data surveyed by the Hankook-Ilbo [Korea Daily News] in October 10, 1976, and the information supplied by the Korea Personal Management Association in 1975, 49 companies were identified as the same organizations, and their increase rates of starting salary were calculated.

(1) It caused the increase in production costs and a decrease of the international competitiveness.
(2) It widened the gap between the wage of high school and university graduates.
(3) Because of the shortages of manpower, there was a tendency by some companies to corner and hoard a larger reserve of higher level human resources than was needed.
(4) The last semester of university was generally used for preparation on job hunt. Hardly any classes were held.

Although the scheme of wage control was not implemented, it was clear that there was a shortage of high level manpower. However, it should not be misunderstood that the high rate of increase of starting wages was caused by the shortage in the total number of university graduates. On the one hand, the fields in which there was a short supply of high level manpower were commerce, business, natural sciences and engineering. On the other hand, there was an oversupply of university graduates in the areas of the humanities and social sciences. In other words, there was a structural imbalance in the output of university graduates, i.e. those required by industry failed to increase in numbers, while the supply of those in other areas was continually increasing.

Of course, there was a reason for the rapid increase of starting wages of university graduates of the high level institutes. It may be called the *first-rate disease* because companies tried to employ only the graduates of the first-rate schools. It was a clear fact that there were 10 times more job offerings for the graduates in the *first-rate* universities than for other graduates, and there was not even a single advertisement seeking the graduates coming from the second or third class universities. This situation was more critical in the actual employment situation. When the employers concentrated their efforts on competition for the graduates from the first-rate universities, there was no other solution except to increase their starting wages. In this case, it might not have been useful to expand the quota of the second and third-rate universities to stop the over-heated scouting competition discussed above.

In order to meet the deficiency of the high level manpower, the Korean government had tried to attract the scientists and technologists working in foreign countries. They were doctoral degree holders who could contribute to chemical engineering industry which was developed tactically in the Third Five-Year Economic Development Plan, and those who had experiences and abilities to train the students of natural sciences and engineering in Korean universities and to transfer the high technology to the country. Between 1968 and 1975, 250 persons were induced, of which 92 were employed on a permanent basis (See Table XXXI).

The project did not progress as the government had planned. However, it was expected to contribute to the scientific and technological development instead of simply increasing the quantitative supply of scientists and

TABLE XXXI

INDUCTION OF KOREAN SCIENTIFIC TECHNICIANS FROM ABROAD, 1968-75

Year	Permanent Induction	Temporary Induction	Total
1968	5	2	7
1969	8	14	22
1970	8	13	21
1971	12	18	30
1972	13	15	28
1973	18	32	50
1974	19	37	56
1975	10	26	36
Total	93	157	250

Source: Jin-Gyun Kim, "Manpower Development" in Hae-Young Lee and Tae-Whan Kwon (eds.) HanKuk Sa Hoi - In Kuwa Baljeon [Society in Korea: Population and Development] (Seoul: Population and Development Studies Center College of Liberal Arts and Sciences, Seoul National University, 1978), p. 417.

technologists.

Another source of structural imbalance was the mismatch between the educational areas and the occupational fields of the graduates already suggested above. Traditionally, educators had been minimally concerned about what happened to students after they left school. This was the responsibility of the family, the employer and the Ministry of Labor. However, with the rising unemployment rate of school leavers and dissatisfaction among employers with students' learning, the mismatch between schooling and employment had become an issue. Particularly, higher education graduates were expected to find a job in fields directly related to their studies not only to maximize the returns in their investment in education but also to enhance the graduates' adaptation and contribution to the society.

Table XXXII shows the occupational compatibility between education majors taken by students in Korea. According to this official data, except junior technical and vocational colleges, the compatibility rates of other levels of education increased somewhat during the 1970s. However, it might be difficult to simply conclude that the number of students who had found jobs in the fields directly related to their studies increased. This was partly because of the unreliable government statistics on the employment state as discussed earlier in this chapter. Further, there was a methodological problem in checking the compatibility between educational majors and jobs in Korea. Because of the differentiation and diversification of the occupation in general, there was a tendency that the criterion of compatibility was not strictly followed and therefore there were more responses that the graduates' occupation matched their studies. For example, the law graduate was traditionally supposed to take jobs such as a lawyer, judge, prosecutor and the related occupations. Otherwise, there would be a *mismatch* between education and occupation. However, the tendency has been gradually changed; to *match* the education to their occupation, a law graduate can take a job as an administrator, salesman and clerk, presuming that there is some need for legal knowledge in one's job.

TABLE XXXII

THE OCCUPATIONAL COMPATIBILITY WITH EDUCATION MAJOR BY EDUCATION LEVEL, 1971-79

(unit, %)

Type of School	1971	1976	1979
Vocational High School			
Total	84.6	86.5	87.1
Male	85.8	86.9	87.7
Female	81.5	85.7	86.2
Jr. Tech./Vocational College			
Total	87.4	84.6	84.4
Male	87.3	84.3	85.9
Female	93.2	85.4	81.3
Jr. College & Teachers' College			
Total	74.7	81.1	74.6
Male	84.5	88.5	89.7
Female	69.3	78.3	64.2
College and University			
Total	75.6	80.5	82.9
Male	75.4	81.4	83.0
Female	76.2	78.2	82.5

Source: The Statistical Yearbook of Education, 1971-1979.

Much of the information on the success of the various programs reflected in government statistics was unclear. In the case of college and university graduates, there were two case studies conducted by the central Education Research Institute (CERI) in 1962 and the Seoul National University (SNU) in 1971 (See Table XXXIII). In comparison with the government statistics (Table XXII), these case studies showed a relatively higher rate of mismatch between education and occupation. Among the respondents the percentage of those who considered their jobs and their education *highly compatible*, *somewhat compatible* and *lower/not compatible*, the figures were

TABLE XXXIII

OCCUPATIONAL COMPATIBILITY WITH EDUCATIONAL FIELDS

Areas	Study	Highly Compatible	Somewhat Compatible	Lower/Not Compatible	Total	(N)
Liberal Arts & Social Sciences[c]	SNU[a]	25.1	12.5	20.4	58.0	(1,665)
	CERI[b]	18.4	24.3	12.6	55.4	(123)
	Total	24.6	13.3	19.8	57.8	(1,788)
Natural, Physical & Applied Science[d]	SNU	31.3	3.5	7.2	42.0	(1,207)
	CERI	37.0	7.2	0.5	44.6	(99)
	Total	31.7	3.8	6.8	42.2	(1,306)
Whole Areas	SNU	56.4	16.0	27.6	100.0	(2,872)
	CERI	55.4	31.5	13.1	100.0	(222)
	Total	56.2	17.1	26.6	100.0	(3,094)
	(N)	(1741)	(530)	(823)		

Source: Adapted from M. Y. Lee and K. S. Chang. A Follow-Up Study of College and University Graduates (Seoul: Central Education Research Institute, 1966), p,24; S. K. Im and K. Y. Rhee, "A Preliminary Study on The Occupational State of Graduates." Seoul National University Research Review, Vol. 8, No. 1, pp. 31-42 (June, 1971).

Note:

a. SNU (Seoul national University) Study Covers 1958-1969.
b. CERI (Central Education Research Institute) survey conducted in 1962.
c. Includes Linguistics, Arts, Humanities, Education, and Social Sciences.
d. Includes Natural Science, Mediance, Agriculture and Forestry, and Engineering.
e. Includes the response of unknown.

56.2, 17.1 and 26.6 respectively. For graduates from SNU, which is the most prestigious university in Korea, the compatibility between their education and their jobs was even less than that of the CERI group. There were substantial differences in compatibility between education and jobs. For example, the education of liberal arts and social sciences graduates were less compatible than those of natural, physical and applied sciences. This trend of mismatch by areas of educational specialization continued to be cbserved in the 1980 Population and Housing Census Report.

The gap between university education and occupational demand has been even more serious for the female graduates. Compared to the male graduates, females have little chance to use their studies in their employment. When they were given employment by companies, the jobs were seldom "classified" as in the case of the males. The demand in most cases was for secretarial-type jobs, and on those which required such skills as English typing, stenography etc.
Therefore preference was given to the graduates from the departments of English, trade and industrial design. It might be suggested that as a general rule the subjects in which university students majored were not considered in the employment of individuals by companies. When applying for employment, the students were often asked to indicate what work they wanted, regardless of the fields in which they majored at the university. The workers wanted were classified

by the companies as employees (clerical worker - secretary), teacher, interpreter (English, French, German, Japanese and Chinese), and others. In many cases, the personal appearance of the candidates was a crucial factor for employment. The companies only selected good-looking female employees. They were generally regarded as *flowers of the company* instead of human resources.

Vocational education was another problem issue. The education provided by the vocational high schools was generally regarded as a terminal course leading to employment although there was only a single track in the educational system. Many of the students, however, preferred academic rather than vocational occupations and attempted to progress to higher education after they had completed the vocational program, as we have seen earlier in this chapter. Moreover, it is important to note that in the figures cited by the CERI (1967), only 30.3 percent of graduates of vocational education programs were working in "training related" occupations. The point was even more valid in fisheries and agriculture high schools. This inconsistency between the areas in which they were educated and the areas in which they were employed would naturally create dissatisfaction with the work and the result can be considered educational waste.

Summary

In order to assess how the educational system actually performed in relation to the planning goal/targets and the underlying assumptions, this chapter focused on achievement of student enrollment. A highly competitive pattern of entrance was a major feature of the performance of the Korean educational system. Therefore education in Korea was mainly focused on preparing the students to move up the next step of the educational ladder.

The commitment, both in the Constitution and in the Education Law, to the universalization of primary education was achieved in 1965. Compared to the number of places of the middle school, the great expansion of elementary school resulted in severe competition for entry into the so-called *first-rate* middle schools. The over-heated competition for places in those schools made the elementary school curriculum abnormal or distorted, stimulating parental demand for private tutoring for their children, and adversely affecting the students' health. As a result, the Ministry of Education (MOE) announced a *no entrance examination* policy for the middle school. The pressure from the middle school population in turn brought about the *equalization* policy for entrance into the high schools. A bottleneck developed at the level of entry into higher education institutions, especially for the elite universities.

Compared to the goal/targets for student enrollment in various educational institutions, the actual outcome was characterized by an "over-expansion of the quantity, at the sacrifice of qualitative improvement." The actual quantitative expansion measured in terms of total enrollment, and the advancement ratio were higher, with few exceptions, than that of the enrollment projection of the educational plans. However, the educational condition in comparison to the quantitative expansion seems to have deteriorated. The indicators of the qualitative improvement that were used were class size, student/teacher ratio and the public educational expenditure in comparison with total government expenditures and the GNP.

The underlying assumptions behind the goal/targets of the student enrollment projection were also explored. There were the ideas that the projected target would result in an equalization of the educational opportunity and in addition would produce a closer match between manpower demand and supply. Sex, regional and socio-economic class disparities were identified although there were some exceptions which may be taken as improvement in the system. In higher education, especially in the elite universities, the disparities were critical and there was little improvement during the period under study. There was an overall difference between total demand and supply of the educated labor force and there were structural imbalances between education and occupation. In spite of the data limitations, there were strong signs of underemployment of the university graduates between 1970 and 1980. *The Poverty in the Plenty* was another characteristic phenomenon of demand and supply in high-level manpower and skilled technicians. Finally, the mismathc between education and occupational fields has not been removed, especially in liberal arts and social science, female graduates, and vocational education.

CHAPTER VI

THE NON-REALIZATION OF THE GOAL/TARGETS AND THE UNDERLYING ASSUMPTIONS: A STRUCTURAL EXPLANATION

If what is described above is a more or less faithful picture of the actual performance of the educational system in Korea during the Park regime, one is naturally faced with the question, "Why have the planned goal/targets and the underlying assumptions of the student enrolment projection in educational plans not been realized?" More specifically, the answer to the question relates to three issues: (1) the massive expansion of education at the cost of educational quality, (2) unequal distribution of educational opportunity in spite of the expansion, and (3) mismatch between manpower demand and supply under the continuation of high economic growth. To explain these shortcomings, this study employed the structural interconnection between the educational system and wider society. It focuses on how the social class structure shaped the functions of the educational system.

Explosive Expansion of Education at the Expense of Quality

Compared to the goal/targets of the projected student enrolment in educational plans, Korea experienced an over-expansion of educational services at the expense of qualitative improvements. The fundamental question to be addressed is why the demand for education in Korea was so high, causing so little emphasis to be placed on quality.[1] One possible explanation may be that education had been regarded as a consumption good, or as an end itself. However, the argument was not very convincing because of its relative significance in terms of the urgent need for other consumption goods essential for raising the general standard of living of workers in Korea. Instead, it was argued that the socio-economic reward structure for education reinforced functions of the educational system in Korea by means of social differentiation.

Socio-Economic Reward Structure of Schooling

As is the case in many other developing countries, Korean society was characterized by a fairly marked dualism in its economic structure. There were wage differences between jobs in the *modern* sector and those outside this sector (family farming, rural and urban self-employment, etc.) which may be called the *traditional* sector (See Appendix Table X). Then, entry into modern-sector jobs depended initially on the level of completed education, whereas income-earning opportunities in the traditional sector had no fixed educational requirements. It was argued that the distribution of rewards was increasingly based on the universalistic criteria of achievement--a technical functional view of education. The ability of an individual to contribute to the economy was largely determined by the skills which were generally acquired in school. Because a person's contribution through his/her skills was assumed to determine his/her rewards, and because these skills were learned in school, education assumed greater importance in determining an individual's role in the economy.

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[1] The supply factor is not considered because it was reflected in the student enrolment projection on the basis of demographic statistics.

The major factor influencing a student's desire for university education, and this had come to be increasingly recognized, was characteristically the system of economic reward. The estimate of future return, however crudely made, influenced his or her educational choice more than anything else.[2] It had, for instance, been found that stipends and present value of expected income explained a significant proportion of the explosive expansion of education to the sacrifice of quality. This association between education and earnings could be expressed in two ways--(1) average earning differentials by education level, and (2) the rates of return to education--both of which conveyed essentially the same information.

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[2] Of course, there were several other variables, many of which were non-economic, including cultural traditions, social status, etc. For more information, see J.C. Im, "Hankukeui Sahoe Kujowa Jaesoosaeng Munje" ["Korean social structure and the repeaters problem,"], Dialogue, Vol. 62, 1975.

Earning Differentials by Education Level

Korean students and parents were no different from their counterparts in other countries in making educational choices in terms of job prospects and future earnings from their educational investments. As shown in Table XXXIV, the superior earning capacity of those with a higher level of education was clear in the 1970s. If the 1970s earning of high school graduates was based on a figure of 100, the earning of elementary school graduates was estimated at 61.4 and that of middle school graduates was 69.1 in 1979. In contrast, the earning index of junior college, and college and university graduates were recorded at 147.6 and 230.7 respectively compared to that of the high school graduates. These income returns were much lower for elementary and middle school graduates. However, the marked differences in the income levels between those with different levels of education did not occur for junior college and college and university students until 1971 and 1979. An examination of the gap between high school and college and university graduates

TABLE XXXIV

EARNING DIFFERENCES OF WORKERS BY EDUCATION LEVEL, 1971-79

(Unit, Won, %)

Classification	1971	1976	1979
Elementary School Graduates			
Income	15,511	39,492	96,939
Indicates (%)	53.6	54.0	61.4
Middle School Graduates			
Income	18,892	46,669	109,034
Indicates (%)	67.3	63.8	69.1
High School Graduates			
Income	28,944	73,144	157,790
Indicates (%)	100.0	100.0	100.0
Junior College Graduates			
Income	-	106,256	232,884
Indicates (%)	-	145.3	147.6
College and University Graduates			
Income	51,292	167,982	364,010
Indicates (%)	177.2	229.7	230.7

Source: Ministry of Labor Affairs, Income Survey Report (Seoul: Ministry of Labor Affairs, Republic of Korea, 1979), p. 26.

Note: - The data was not available.

showed that those with only 12 years of schooling earned less than half of those schooled for 16 years. The income gap between these two groups widened between 1971 and 1979. In 1971, the high school graduates earned 56.5 percent of the incomes of college graduates, and the proportion was down to 43.3 percent in 1979.

Table XXXV shows that those who had not entered the university and had been employed for the same period of four years during which a student was enroled in a university, received only 78 percent of the initial earnings of the university graduates. This trend was more or less the same in

TABLE XXXV

COMPARISON OF STARTING WAGES OF UNIVERSITY GRADUATES AND 4-YEAR EXPERIENCED HIGH SCHOOL GRADUATES BY INDUSTRY AND EDUCATIONAL FIELDS (1977)

(unit; won, %)

	Academic and Business			Sciences and Engineering		
	Starting Wages of Univ. Grad. (A)	4-Year Experience High School Grad. (B)	B/A (%)	Starting Wages of Univ. Grad. (A)	4-Year Experience High School Grad. (B)	B/A (%)
Total Average	123,529	97,109	78.6	127,250	99,375	78.1
Mining	97,139	83,603	86.1	111,022	92,028	82.9
Manufacturing	123,787	87,898	79.1	127,399	99,515	78.1
Construction	129,302	96,373	74.5	134,221	98,225	73.2

Source: Korea Managers Association, Trends and Measures for the Starting Wages of the University Graduates, 1977.

academic and business fields, and science and engineering fields. Although the high school graduates had valuable skills and useful certificates such as first-class technician or second-class technician, their wages were 1.4 to 1.5 times less than the university graduates simply because of credential difference (H. K. Park, 1984:137).

Therefore, it was a fact that many high school graduates could work without any problem for the first 3-4 years while the college graduates in the same class were in studying in the university. However, after that, they often stopped working and prepared for the university entrance examination due to the relative differential of wages between high school and university graduates. The phenomenon of enormous expansion of education, especially, the *bottleneck problem* for higher education discussed in Chapter V, is closely related to this wage differential between individuals with different levels of education.

In Korea, the statistics on the earning differentials by education level was shown in the Report on Occupational Wage Survey published by the Ministry of Labor Affairs. Since 1968, however, there has been no data on earning differential by age and the level of education. Thus, Prof. C.Y. Cheong of Yonsei University reorganized the raw data of the Labor Office and calculated the annual earnings of 1971 by age and the level of education as shown in Table XXXVI. According to this table, the earning differential by education level was more

TABLE XXXVI

ANNUAL AVERAGE EARNINGS BY AGE AND THE LEVEL OF EDUCATION (1971)

(unit, won)

Age	Elementary School Graduates	Middle School Graduates	High School Graduates	University Graduates
14-15	72,641	0	0	0
16-17	89,208	107,350	0	0
18-19	105,106	120,556	204,268	0
20-21	122,658	141,773	237,995	0
22-24	140,972	164,336	268,217	372,174
25-29	209,400	235,113	312,664	462,175
30-34	251,556	300,036	363,077	572,856
35-44	288,310	351,398	440,429	724,844
45-54	328,209	411,865	649,012	903,857
55-64	284,546	363,149	566,927	930,009

Source: Ministry of Labour Affairs, Income Survey Report (Seoul: Ministry of Labour Affairs, Republic of Korea, 1971).

clear-cut: in the same age bracket, the group with more education would have higher average earnings in their employment than the group with less education. Or, to put it differently, everyone tended to earn more as they grew older and acquired more work experience. Further, individuals with more education tended to start off at a higher salary and this differential widened with age.[3] This showed that the effects of education increased over the course of time. Similar results were found from the study conducted by Se-Il Park in 1982. According to this study, males who graduated from a four-year college and university and were employed between the age of 24-60 earned 1.8 times more than high school graduates employed between the ages of 20-60, 2.3 times more than middle school graduates employed between the ages of 17-60, and 2.5 times more than elementary school graduates employed between the ages of 14-60 (See Park, 1982).

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[3] Of course, these were mean earnings of cohorts with different levels or years of schooling. This did not necessarily mean that every university graduate would earn more than every high school graduate, but the tendency was, nevertheless, unmistakable.

The earning differential in Korea coincided with the general picture of other developing countries. According to Simmons, in the developed countries, those differentials were shrinking, but in the developing countries, there was some evidence to show that they were expanding (1980: 35). In the case of Japan, a neighboring country of Korea, the wage differential had been improving since 1963. In 1970, for example, the starting wages of high school graduates were 78 percent of those of the university graduates. This was in contrast to the Korean case which was below 50 percent. In Korea, as in other countries, it was assumed that the more educated one was, the higher the level of one's labor productivity. Therefore, wages were more for that group than for those with less education. As a result, it was often said that some people exhausted their fortune to invest in education to the extent that the university was called the *tower of cow bone*.[4] This will even be clearer when an examination is made of another indicator, the rate of return to education.

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[4] This originated from the fact that the farmers sold their cattle to pay the tuition and other educational fees of their offspring.

Rate of Return to Education

The wage differential by education level was used as the primary data to examine the effects of credentials on income. However, it would not be true to conclude that the credentials awarded by a higher level educational institution always increased one's productivity. It was simply because the total investment costs including opportunity cost had to be considered in the reward system. In other words, middle school graduates needed to earn more than elementary graduates because they had invested more on their education. But since educational costs were higher, then there had to be wage differentials between these two levels of education.

As shown in Table XXXVII the rates of return to education were computed at different points of time and on the basis of different criteria. Since they were not calculated with the same measuring rod, the results were not comparable to each other in a strict sense. Therefore, the comparison of data as attempted here is simply to see the general trend of changes in the rates of return to education. It is worthwhile to note that with the passage of time the highest rates of return to education moved from the lower level to higher level of education. The socio-economic value of education was

TABLE XXXVII

THE RATES OF RETURN BY LEVEL OF EDUCATION

	(a)	(b)	(c)	(d)	(e)	(f)	(g)
Level of Education	1967	1969	1969	1971	1971	1977	1980
Middle School	12.0	20.0	1.0	0.2	2.9	2.8	2.9
High School	9.0	11.0	15.0	14.6	5.7	9.9	8.1
College and University	9.5	9.5	8.5	9.3	1.9	13.8	11.7

Notes:
a. Kwang-Suk Kim, Rates of Return on Education in Korea, Seoul: USAID/Korea, 1968.
b. Robert M. Morgan (ed.), Systems Analysis for Educational Change: The Republic of Korea, Florida State University, 1971.
c. Je-Hoon Koh et al. Study on the Projection of Effect of Investment in Manpower Development, Seoul: Korea Development Institute, 1971.
d. Chang-Young Jeong, Rates of Return on Investment on Education: The Case of Korea, Seoul: KDI, 1974.
e. Woo-Hyun Nam and Chang-Young Jeong, Economic Value Analysis of Educational Investment in Korea, Seoul: Korea Development Institute, 1973.
f. Chong-Keun Bae, Study on Optimal Investment in Education and Its Economic Effect, 1978, p. 237 quoted in KCUE (1983: 96).
g. Se-Il Park, "Social and Private Rate of Return to Education in Korea," The Korea Development Review, Vol. 4, No. 3, September, 1982, pp. 94-121.

remarkably quite high, and that of higher education in particular was exceptionally so. This was one of the reasons why parents sent their children to the university. This trend of change in rates of return to education did not occur by chance; it was a general phenomenon to move from low level to high level of education in the process of educational growth.[5] It was necessary to pay attention to the trend of changes in the rates of return according to the pace of educational growth (See Figure V). When the graduates of elementary school were not many, the value of certificates of elementary education was not high. However, with the gradual increase of the graduates, the socio-economic value of the credential became recognized, was favored by the employers, and resulted in an increasing wage differential between elementary school graduates and non-graduates. However, when elementary education was made available to everybody, the value of those credential acquired was lowered and the certificate awarded to middle school graduates was favored. This phenomenon continued to the next level of education moving up the ladder. As a result, in a situation where high school education was widespread in the population, the chances of university education were likely to be more limited, and the certificates of university graduates were highly valued, as has been seen in the case of Korea during the period under study.

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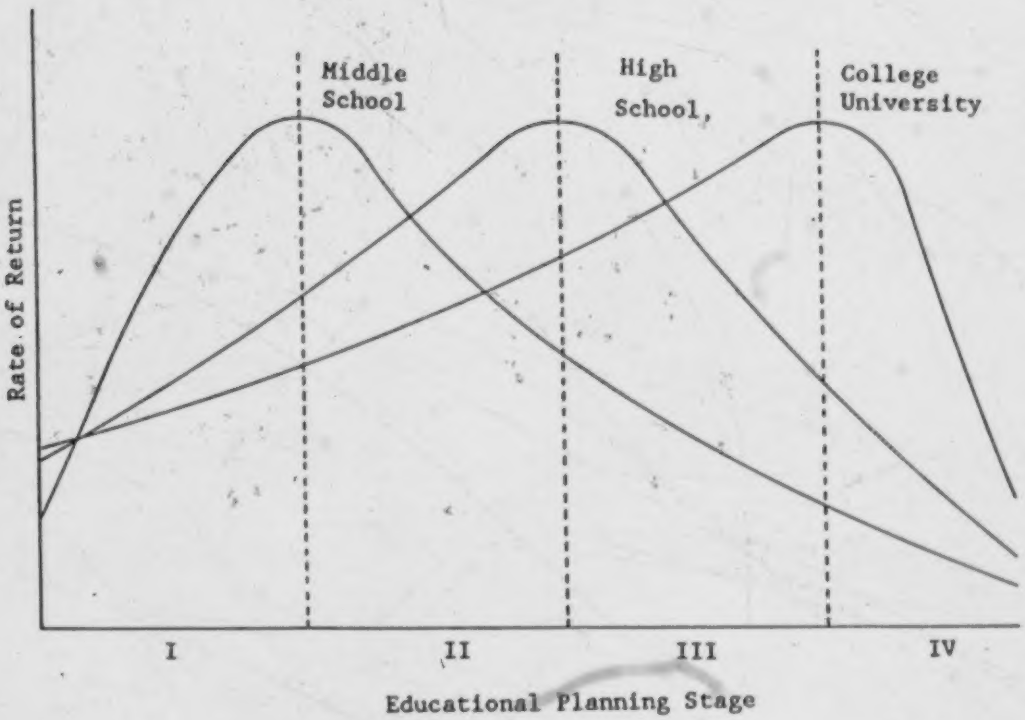
[5] See M. M. Carnoy, "The Political Economy of Education," in Education and Development, edited by Thomas LaBell, UCLA, 1972, p.182.

Many economists are of the view that high rates of return, both social and private, are evidence of education's contribution to the economy. The point they make is that unless educated individuals were more productive, employers would not be willing to reward them or pay them higher wages. While there is some truth in their view, there are many structural factors which affect the relationship between education and income. For example, segmentation of the labor market and discrimination on the basis of sex and race often

FIGURE V

THE RATES OF RETURN BY EDUCATION LEVEL



produce lower rates of return for these groups, but it cannot be assumed that they are less productive.

Table XXXVIII showed the social and private rates of return to education for male and female in 1980. In Korea, income levels of women with similar levels of education are usually lower than those of men. The private rates of return for men with middle and high school education are 3.2 and 8.1 percent respectively, and the corresponding rates of return for women are -14.4 and 5.5. This can hardly be attributable to low rates of productivity among women. Two other conclusions emerged from the table. First, private rates of return are always higher than that of social ones, with the exception of females with a middle school education. Secondly, almost all rates were relatively high and could compare favorably with the alternative investment opportunities. Another point is that, in the case of the males, the rates tended to rise with higher levels of education, while in the cases of the females, the rate of return on junior college education was higher than that of university. In the case of middle school graduates, the rate of return on education for females was negative. It was not because the elementary school graduates earned more than middle school graduates, but because the female participation in jobs was lower. Unemployment sent down rates of return. The next question which arises is "Why was the private rate of return so high

TABLE XXXVIII

THE SOCIAL AND PRIVATE RATES OF RETURN TO EDUCATION BY SEX AND BY LEVEL OF EDUCATION (1980)

(Unit, %)

	Male		Female	
Type of School	Social Rates of Return	Private Rates of Return	Social Rates of Return	Private Rates of Return
Middle School	2.9	3.2	-12.9	-14.4
High School	8.1	8.1	5.5	5.5
Junior College	10.1	10.2	12.0	12.7
College and University	11.7	12.1	7.3	8.0

Source: Modified from Se-Il Park, op. cit., pp. 112.

in Korea?" Since the social and private rates of return were more or less the same, the answer should be pursued from the wage aspect, particularly the life-long earning differentials discussed in the earlier section of this chapter.

Finally, there were differences in the rates of return to education among the different types of high schools. According to Table XXXIX, clerical workers who graduated from academic and commercial high school earned more than technical workers who graduated from engineering high schools. In the case of technical workers, the income differences were narrowed with more experience, while those of clerical workers moved in the opposite direction. The educational cost per student for engineering was highest among the graduates of high schools. This was followed by those graduates of commercial schools. The rate of return on education was, however, highest among the academic high schools and lowest in

TABLE XXXIX

WAGES, EDUCATIONAL COSTS AND THE RATES OF RETURNS AMONG THE DIFFERENT TYPES OF HIGH SCHOOL (1977)

(unit, won)

Classification	Academic[a] High School	Commercial[a] High School	Engineering[b] High School
Experiences			
Starting wages	62,600	66,500	60,700
5 years	104,000	117,000	107,900
10 years	157,300	171,400	134,300
Educational Costs			
Public cost	128,713	128,300	182,158
Private cost	98,232	82,414	70,695
Sub-Total	227,036	210,441	252,85[illegible]
Opportunity cost	578,676	578,676	578,676
Total Cost	707,389	706,976	760,830
Rates of Return (%)	12.58	11.87	7.03

Source: Reorganized Tables 3.6-3.9 in Yoon-Tai Kim et al., Effectiveness of Technical and Business Education in Korea (Seoul: Korean Educational Development Institute, 1977), pp. 71-76.

Note: a. office worker.
b. technical worker.

the commercial and engineering high schools. Interestingly enough, more investment was made by the government in providing engineering high schools, compared to the academic and commercial high schools. However, the rate of return of the engineering high school was least among these three types of high school. It is not difficult to realize that these facts would influence one's preference for the type of high school education as against another.

As indicated above, the persistence of the economic differences between two sectors of the economy had a very important influence in raising the educational aspiration of the population. The level of educational attainment was not only a symbol of status among the people but also a major criterion for selecting and differentiating persons who aspired to get into the decent jobs. The socio-economic reward structure of society had become a principal factor in creating the rising demand for education in Korea as it has in many developing countries.

In this situation, the qualitative aspects of education were often sacrificed for quantitative increases in supply as seen in Chapter V. This resulting educational inflation--this disease--was referred to in Korea as "a windbag education" since while the outward shape was large, the content was unsubstantial. The reason why credentialing became so important despite the low quality of education was that society was mainly concerned with the level of the diploma achieved, rather than what was actually learned in school. The rise in the level of credentials did not always correspond to an improvement in skills. In other words, in order to compete with others, it was necessary to have a high level of credential. This result was a *devaluation of credential*. As Berg (1971) and Dore (1976) pointed out, it was necessary to have the certificate of a university graduate for the same type of job that had been previously filled by a high school graduate in the past.

Low Cost Policy of Education System

As indicated earlier, the role of the educational system as a factor in reinforcing the class structure was a crucial one and their mutual interaction is critical to understanding this relationship. With a reward structure based on credentialing in Korea, it would be interesting to examine the functions of the educational system in creating the over-expansion of education or *the diploma disease* in Dore's terminology. Basically the Korean government adopted a "low cost" policy for education. The policy was implemented in three different ways: (1) by the establishment of mammoth schools and the introduction of the multi-shift system, (2) by an increase in the number of private schools, and (3) by keeping teachers' salaries low and their moral support high.

Mammoth School and Multi-shift System

In order to accommodate the increased enrolments, class sizes were gradually increased. Later, school buildings were made substantially larger by adding classrooms to existing facilities, and by constructing large new schools. As a result, overcrowded classrooms and mammoth schools were created. As shown in Table XL, the class and school sizes were much larger than those in most countries, including the United States. In 1978, 33.9 percent of classes exceeded the legal quota of 60 pupils per class all over the country. This was especially so in a big city such as Seoul, where 74.5 percent of classes had more than 71 pupils. On the other hand, there were schools accommodating relatively small numbers of pupils in the remote rural areas. The situation was similar in terms of school size. Nearly 10 percent of schools had more than the legal quota of six classes per grade (or 36 classes in school) throughout the whole country and almost 76 percent of schools exceeded the quota in Seoul.

In Korea many people were apt to accept the reality of the large classes in schools, although they did not fully support it. It was based on the belief that there was no definite proof that difference of class size had a negative effect on academic achievement. In fact, it was true that there were differing opinions on the relationship between class size and academic achievement. However, the class size of 60 or more in Korea would not be debatable. Any study clearly showed that this class size was not going to raise academic achievement.

Another reason for the willingness to accept the large classes in Korea was based on the comparison of the academic achievement between rural and urban areas. This showed that in general students' academic performance in small classes in rural areas was not any higher than that of children attending large classes in urban areas. However, this point failed to recognize the fact that the socio-economic structural

TABLE XL

ELEMENTARY SCHOOL CLASS AND SCHOOL SIZE BY REGION (1978)

(unit, %)

No. of Pupils Per Class	Seoul	Pusan City	Others	Total	(N)
below 60	0.9	41.0	92.6	66.1	(69,194)
61-70	24.6	56.5	7.1	19.3	(20,210)
over 71	74.5	2.5	0.3	14.6	(15,284)
Total	100.0	100.0	100.0	100.0	(104,688)
(N)	(19,613)	(18,860)	(66,215)		
No. of Classes Per School					
1-36	24.1	70.0	96.7	90.4	(5,753)
37-60	33.6	17.4	3.3	6.1	(391)
61-90	42.2	12.6	-	3.4	(217)
Total	99.9	100.0	100.0	100.0	(6,361)
(N)	(348)	(546)	(5,467)	—	

Source: Administrative statistics reported to the Bureau of Elementary Education as of April 1, 1978. Reorganized Tables 30 and 32 in Ministry of Education, 30-Year History of Education in Korea (Seoul: MOE, 1980), pp. 103-104.

Note: - the figure was negligible.

variables (i. e., religion, culture, economic condition, class, and tradition etc.) were likely to have a greater influences on students' performance than those conditions in the schools (i. e., class size, facilities, and number of books). To put it another way, there were regional differences such as the structural chracteristics of rural society which affected the academic achievement of pupils more than class size and then modified the effect of such structural characteristics. Therefore, the rural areas might have benefited from their smaller class sizes, though the academic achievement of the pupils was affected by other variables mentioned above.

The large class or mammoth school size created many educational problems especially the following. First, teachers were forced to provide a fairly uniform type of instruction instead of diversified classroom activities. In the limited space of the classroom, the teacher found it difficult to practise child-oriented learning activities such as discovery learning, inquiry study, group study, observation learning, and discussion etc. Instead they often fell back to textbook-oriented learning. Second, students were under the pressure of the authoritarian control of the teacher. In the large-sized class, the teacher was inclined to judge the students personally or negatively, and to give simple or direct information. The outcome was a more uniform and directive control of students. Third, there was a lack of personal contact between teacher and students. The students in the large classes participated very little, if at all, in group activities and had little chance of status bearing responsibilities in the schools.

In an attempt to alleviate the overcrowded classes, the allowance was temporarily introduced the shift system with two or three shifts. Table XLI shows the nationwide percentage of elementary schools and classes which operated with more that two-shifts system in 1966 was 68.7 and 19.6 percent respectively. The appalling situation of having two or three

TABLE XLI

MULTI-SHIFT SYSTEM OF ELEMENTARY SCHOOL, 1966-79

Schools/Classes	1966	1971	1976	1979
Schools				
Total	5,274	6,085	6,405	6,450
Over two-shift	3,624	1,549	401	954
Ratio (%)	68.7	25.5	6.3	14.8
Classes				
Total	79,225	94,663	103,663	108,002
Over two-shift	15,536	4,617	5,607	8,378
Ratio (%)	19.6	4.9	5.4	7.8

Source: Statistical Yearbook of Education, 1965-79.

shifts has been relieved during the past decades by an increase in school facilities and by reduction in numbers of pupils through population control. However, the crowded nature of classrooms still existed in metropolitan areas (See Appendix Table XI). In terms of overcrowding, the situation was even worse in the lower grades (1st, 2nd and 3rd grades) than that in the upper grades.

A Large Percentage of Private Schools

In order to respond to the explosive demand for education, the proportion of private schools was allowed to increase. In other words, the substantial increase in demands for education resulting in increases beyond the number of students provided for by government educational budget on education resulted in the expansion of private schools. As shown in Table XLII, the portion of the total number of elementary schools that were privately operated made up only 1.2 percent, but at the middle school, high school and college and university levels, the percentage was 36.1, 50.3 and 76.2 percent respectively.

TABLE XLII

NUMBER AND RATIO OF SCHOOLS, STUDENTS AND TEACHERS BY THE ESTABLISHERS (1979)

(Unit, %)

	Schools		Students		Teachers	
Type of School	Number	Ratio	Number	Ratio	Number	Ratio
Elementary School						
National & Public	6,402	98.8	5,570,234	98.8	115,893	98.8
Private	77	1.2	70,478	1.2	1,397	1.2
Total	6,749	100.0	5,640,712	100.0	117,290	100.0
Middle School						
National & Public	1,313	63.9	1,457,887	60.9	32,549	61.6
Private	743	36.1	936,733	39.1	20,305	38.4
Total	2,056	100.0	2,394,620	100.0	52,854	100.0
High School						
National & Public	645	49.7	646,012	41.3	21,094	44.3
Private	653	50.3	919,343	58.7	26,517	55.7
Total	1,298	100.0	1,565,355	100.0	47,611	100.0
College & University						
National & Public	20	23.8	94,714	28.7	4,099	31.4
Private	64	76.2	235,631	71.3	8,960	68.6
Total	84	100.0	330,345	100.0	13,059	100.0

Source: The Statistical Yearbook of Education, 1979.

The private proportion of students and teachers was in similar situation of the school. These figures clearly show that the Korean government relied heavily upon the private school system, especially in the higher level of education to meet the government educational demand of the population. It would be useful to discuss briefly the situation of the large proportion of private schools in Korea.

First of all, private schools with good facilities for primary education emerged to fulfil the needs of children of wealthier families. As indicated in Chapter V, the advancement from one level of education to the next was very competitive in Korea. Therefore, the wealthy families tried to send their children to the better equipped private schools in order to get excellent results in their competition for entry into the next level of the educational system. In fact since 1963, the Korean government had encouraged volunteers to establish private elementary schools to help reduce overcrowded classrooms. In response to the promotion of private schools, 88 new elementary schools were established in the country by October, 1971.

However, the private elementary schools were criticized as *aristocratic institutions*. In October 1971, the issue of continuation or abolition of private elementary schools from the educational system attracted a great deal of national interest. The Republic Party even prepared the draft of a proposed law to abolish these private elementary schools, etc. A member of Parliament, D. J. Chang, who proposed the draft, explained the background of the bill as follows:

> (1) The private schools create the aristocratism.
> (2) The private schools are centers of illegality and corruption. A lot of unlawful means were utilized by parents to send the children to the private schools.

(3) The private school teachers were corrupt. They were not judged by how well they taught the pupils but were assessed by how much money they collected as contributions from the parents.
(4) The private schools departed from the ideals of education
(5) The educational work of the private schools was regarded as a means of accumulating their owner a fortune (Ministry of Education, 1980: 96).

In responding to these criticisms, the private schools acknowledged that some schools had deviated from the path of trying to provide a sound education, but most of them had not. They further argued that the private schools should be continued in respect of their long historical tradition, educational ideals and excellence. It was true that the private schools created problems of widening the gap between quality of compulsory education and the creation of non-educational environment of education. However, it was concluded that the private schools were to be allowed to exist because they responded to practical need for more educational facilities in order to help to meet the increasing number of students seeking an education. It was further suggested that the identified problems of the private schools could be solved on a long term basis.

The high reliance on the private schools resulted in a scramble for the secondary and higher educational institutes by a much larger student population. The private schools increased the numbers receiving a secondary education because they accepted those who failed in the competition for entry into national and public high schools. In particular, the private higher educational institutes played a decisive role in increasing enrolment at the college or university level, since the majority of the students receiving this level of education were in private institutions. One outcome was that a student's financial resources became the main criterion determining whether he/she received higher education, superseding the principle of equality of access to education.

This became a major factor in creating a maldistribution of educational opportunity by region as suggested in Chapter V. From the parents' point of view, it was better for them to send their children to the schools in the big cities such as Seoul, the socio-economic and cultural center of the country. From the entrepreneur's point of view, it was better to set up private schools in the big cities in view of the large number of students available there who could afford to pay for their education. Because of these two views about the location of private educational facilities, the newly established private institutes were located mainly in Seoul. This obviously resulted in an imbalance in the distribution of the educational facilities throughout the country and adversely affected the equity principle of the whole country.

Furthermore, the tradition of dependency on the private schools increased even further an imbalance between academic and vocational high schools, since the former was the type of school most likely to be provided by private entrepreneurs.

In other words, despite government policies to expand the vocational high schools, the low proportion of the enrolment in such schools was mainly due to the fact that establishers of the private schools were not interested in constructing a high-cost vocational high school in preference to the academic ones largely because of the cost.

However, there were two other reasons which help to explain the failure of the vocational schools in Korea. First, the parents and the students preferred the academic high schools which increased their chances to enter into the university. Second, vocational teachers were to have been well-trained teachers with industrial experience, but such individuals were difficult to find in Korea. Similar to what Philip Foster observed in the case of Ghana some years ago, the vocational training in formal educational institutions in Korea also made little sense on either educational or economic grounds.

Low Wage of Teachers and Moral Support

Another typical solution to meet rapid expansion of education with a limited budget was to award lower levels of pay to teachers. They were unduly underpaid and in a sense were relatively deprived. In 1965, for example, the official teachers' salaries were 6,220 won per month for elementary teachers, 7,690 won for middle school teachers, and 8,860 won for high school teachers. According to Yong Hwan Chang, however, the average living cost for a family living in Seoul City was 12,270 won per month (quoted in McGinn et al., 1980: 72). What was clear was that the official salaries paid to teachers were lower than those received by other persons with equivalent levels of education and training. In other words, Korea was able to provide a fairly well-trained teaching force at relatively low cost.

There were several explanations for this. First, the profession of teaching in Korea had been highly respected culturally.[6] Second some teachers could often obtain additional incomes over and above their salaries, mainly through private tutoring conducted after school hours. Third, there were high rates of unemployment among individuals with this level of education, and this made available a pool of low-cost labor for education. The teaching job, in general, was characterized by its dual or conflicting status: it was a culturally privileged job and teachers were treated with respect by the public--even though this might have been superficial. However, in terms of their incomes, they were badly treated as compared with other workers.

Unfortunately, this began early in the 1960s when economic development in Korea started to take off. According to a study conducted around that time, the elementary school teachers perceived that their society rated them in terms of their status with such groups as shopkeepers, farmers, and skilled craftsmen in social esteem.[7] This was a striking contrast to the traditional respect which they were supposed to have enjoyed in Korea.

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[6] According to the Confucian belief, "the king, the teacher and the parents are the trinity."

Thus, the problem of teachers' feeling that they enjoyed much less status than other professionals in the country became chronic and not confined to those in the elementary schools. The conditions of the teaching profession were deterrents to young people entering the field: poor remuneration, little intellectual stimulation, teaching in overcrowded classrooms, and over-burdened teaching workloads along with clerical chores which they had to perform and which were not directly related to the instruction and guidance of pupils.

The decline of teachers' morale was strikingly shown in the attrition rates among the qualified and experienced teachers. The attrition rates of secondary school teachers, for example, were 9.4 percent in 1970, slightly decreased to 6.7 percent in 1975, and again jumped to 9.7 percent in 1979 (See Table XLIII). Particularly the vocational teachers had moved to big companies, which resulted in there being only 60% of the required techers in the vocational high schools. Therefore it was hard to obtain competent technicians,

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[7] Marion L. Edman, Primary Teachers of Korea Look at Themselves: A Study of Role and Status (Seoul: CERI, 1962), p. 98.

TABLE XLIII

TRANSFERRING TRENDS OF THE SECONDARY SCHOOL TEACHERS, 1963-79

	1963		1965		1970		1975		1979	
Teachers	Number	(%)	Number	(%)	Number	(%)	Number	(%)	Number	(%)
Middle School										
Total	17,533	100.0	19,067	100.0	31,207	100.0	46,917	100.0	52,854	100.0
New	1,602	9.1	1,870	9.8	5,851	18.7	5,478	11.7	6,956	13.2
Retired	919	5.2	903	4.7	2,957	9.5	3,194	6.8	5,075	9.6
Suspended	147	0.8	91	0.5	105	0.3	394	0.8	709	1.3
High School										
Total	12,083	100.0	14,108	100.0	19,854	100.0	35,755	100.0	47,611	100.0
New	974	8.1	1,199	8.5	2,212	11.1	4,651	13.0	6,111	12.8
Retired	480	4.0	699	4.8	1,824	9.2	2,291	6.4	4,660	9.8
Suspended	51	0.4	32	0.2	54	0.3	786	2.2	256	0.5
Total										
Total	29,026	100.0	33,175	100.0	51,061	100.0	82,672	100.0	100,465	100.0
New	2,576	8.9	3,069	9.3	8,063	15.8	10,129	12.3	13,067	13.0
Retired	1,399	4.8	1,573	4.8	4,781	9.4	5,485	6.6	9,735	9.7
Suspended	198	0.7	123	0.4	159	0.3	1,180	1.4	965	1.0

Source: 30-Year History of Education (Seoul: Ministry of Education, Republic of Korea, 1980), p. 117.

especially in the difficult situation of inducing them to become field-experienced teachers for the vocational schools. In order to solve these problems, the Korean government introduced several measures to attract talented teachers. However these efforts were not very successful.

Unequal Distribution of Educational Opportunity In Spite of the Rapid Expansion

The principal focus of this section will be to explain why the underlying assumption of equalizing educational opportunity was not realized as the educational planners had predicted in the educational plans in Korea. The focal point is to analyze the mechanism by which the disparities in educational opportunity were created at the higher levels of education, especially in the elite universities. There are two major barriers which helped to reduce the degree of participation of children from lower class origins in colleges and universities. These are barriers external to the school and those within the school system. In this study they are categorized into (1) the class structure of domination in Korean society; and (2) the educational system as a *Gate Keeper*, restricting mobility and opportunity among the lower socio-economic groups.

Class Structure of Domination

In Korea, there are three major bases of inequality: the ownership of wealth, ability to acquire wealth through market opportunities, and caste. These three bases of inequality differ in their impact, but they are similar in that they all result in differentiating people economically. The ownership of resources has great potential for securing power and influence. While there are other means through which individuals can sometimes gain power and influence, over time, the importance of acquisition of wealth is likely to prevail in Korea as the major means of differentiation in the population. Therefore, the range of economic inequalities such as income distribution within the three structures of dominance warrants careful examination.

Income Distribution

As indicated in an earlier chapter, distribution of income in South Korea was said to be even more equal than in other Third World countries and was comparable to distribution in the United States. Although this kind of view is commonly shared by many individuals,[8] it should not be thought that South Korea had achieved a remarkable success in terms of income distribution. Based on the model of uneven development, income distribution was not considered as a major issue of economic development from the beginning of the 1960s. The argument was that it seemed pointless to worry about redistribution of wealth until there was something to distribute. It was believed that rapid economic growth would lead to improved conditions for everyone, based on the trickle-down principle.

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[8] See Adelman and Robinson, 1978; Mason, 1980: 409; World Bank, 1981: 182-183.

With the growing economic differentiation and the increasing complexity of the economy, there were several sources of soft data to indicate that a widening gap between rich and poor was emerging. For example, according to the interview survey with 129 adults conducted by Hagen Koo in 1979, 79 percent of them indicated that the gap between the rich and the poor was increasing, and one third of them pointed out it was one of the most serious problems in the society (Koc, 1981: 101-114). Another nationwide survey was executed by the Dong-A daily paper in December, 1979. This survey also reported that Koreans saw the salient economic inequality as a urgent problem to be solved as soon as possible. Of course, the public opinion survey might not have been comprehensive enough to give a total picture of the situation in the country, and therefore, it was necessary to supplement these observations by the use of official data.

As Table XLIV shows, the income distribution had been lopsided among the different social groups. The top 20

TABLE XLIV

INCOME DISTRIBUTION OF HOUSEHOLDS IN KOREA, 1965-80

(unit, %)

Economic Distribution	1965	1970	1976	1980
Lower 40%	19.3	19.6	16.8	16.1
Middle 40%	38.9	38.8	37.9	38.5
Upper 20%	41.8	41.6	45.3	45.4
Gini Coefficient	0.34	0.33	0.39	0.39

Source: Economic Planning Board, Kyonje Baeksu [White Paper on Korean Economy] (Seoul: Economic Planning Board, Republic of Korea, 1983), p. 30.

percent of the population earned 41.8 percent of the national income, and this proportion had risen during the 1970s. The share of income received by the lower 40 percent of the households showed a contrasting pattern, increasing slightly between 1965 and 1970, and then suddenly decreasing in 1970.

The results of the Gini Coefficient also revealed a similar pattern of income disparity.[9] It could therefore be deduced from Table XLIV that the distribution of household income remained nearly unchanged in the 1960s and then greatly worsened in the 1970s.

The question is, "How can we explain this situation in Korea?" In the 1960s when there was large unemployment in Korea, rapid economic growth with an increase in unemployment contributed to the maintenance of equal income distribution.

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[9] For example, the Gini Coefficient 0.34 means unequal distribution of 34 percent compared to equal distribution of 100 percent.

These two outcomes--increased economic growth and rising unemployment--roughly offset each other and hence, the income distribution remained nearly unchanged in the 1960s. In the 1970s when unemployment was already at a lower level, the unequal distribution continued and consequently, the income distribution was worsened.

In patrimonial societies, there had also been great differences of income by sex. According to the Report on the Occupational Wage Survey (1980) published by the Labor Office, for example, the average monthly income of males and female were 328,177 and 158,486 won respectively, and the female ratio was 48.3 percent. First, there had been sex disparity in income distribution in the different occupations. Females were mainly concentrated in simple laboring occupations which required young workers and those with low levels of education. Second, only 3.52 percent of females compared to 6.85 percent of males participated in professional, administrative and managerial occupations (See Appendix Tables VIII and IX). The female workers engaged in the higher level occupations were limited, due to the fact that about 81 percent of the professional, administrative and managerial workers were mainly teachers and nurses. The majority of the female clerical workers (roughly 90%) were typists, accountants, and working in other unclassified jobs. In the case of production and the related occupations, 75 percent of the female workers were hired in relatively simple and labor-intensive jobs such as textile manufacturing, dressmaking, wig, and electronics. Such a concentration of the female work force in the low-ranking sector of the occupational hierarchy had been a major source of the sex disparity in incomes in Korea (KWDI, 1984).

Such sex disparity in the occupational hierarchy as indicated above was also worsened by sex difference itself, even in the same occupation (Table XLV). For example, in the case of the professional and technical workers who had graduated from the university, females received only about 68.2 percent of the income of male workers. In the case of high school graduates working in production lines, the females earned an average 59.5 percent of the monthly wage of the males. Furthermore, the chances of promotion for female were limited, and their income gap wider with the increase of job careers. In addition, the marriage retirement system helped to ensure that female workers were concentrated at the younger age and hence in the low status jobs which in turn lowered their incomes.

Under the export-oriented industrialization strategy which was based on injection of foreign capital, there was rapid growth in the industrial sector which promoted further inequality in the income distribution between rural and urban sectors of the economy. Despite the limitations, it is common to compare farm income to that of urban wage earners.[10] As

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[10] The farm income is a mixture of incomes from various sources for the whole family, but the income of urban wage earners is mainly from labor income.

TABLE XLV

AVERAGE MONTHLY WAGE OF PERSONS WITH CAREER LESS THAN ONE YEAR BY EDUCATIONAL ATTAINMENT, SEX AND OCCUPATION AND WAGE RATIO OF FEMALE TO MALE (1980)

(Unit; Won; %)

Educational Attainment	Sex	Prof. & Technical Workers	Adm. & Managerial Workers	Clerical & Related Workers	Sales Workers	Service Workers	Agricul., Fishery & Forestry	Production Workers
Middle School	F	82,497	-	113,664	95,842	75,189	53,637	67,789
	M	141,947	314,728	138,416	85,562	108,958	110,057	116,386
	Ratio	58.1	-	82.1	112.0	69.0	48.7	58.2
High School	F	99,127	306,450	98,795	72,459	90,253	78,500	76,452
	M	164,421	374,932	169,396	103,034	119,055	115,519	128,444
	Ratio	60.3	81.7	58.3	70.3	75.8	70.4	59.5
Junior College	F	155,500	-	123,875	101,373	194,622	-	83,391
	M	196,529	400,894	198,455	125,458	107,833	109,333	150,265
	Ratio	79.1	-	62.4	80.8	180.5	-	55.5
College & University	F	181,090	325,468	178,035	-	180,128	-	200,441
	M	265,529	542,526	280,721	316,830	182,032	-	225,650
	Ratio	68.2	60.0	63.4	-	99.0	----	88.8

Source: Adapted from Korean Women's Development Institute, Social Statistics and Indicators on Women (Seoul: KWDI, 1986), p. 330.

Note:
a. Wage = Monthly Wage + Annual Special Wage x 1/12.
b. Includes establishments with 10 workers or more.

shown in Table XLVI comparing rural and urban sectors of the Korean economy, the farm household real income, which was 447,016 Won in 1965, had increased to 552,283 Won in 1980, an increase of 123.5 percent. Urban incomes per month, on the other hand, rose from 409,309 Won to 1,039,020 Won during the same period of time, an increase of 253.8 percent. In general, the farm income had always been behind that of the urban wage. The income gap between the farm and the urban wage earners was reduced somewhat in 1975, but again widened after that year and reached a ratio of .69 to 1 in 1980.

It was true that those on farm incomes in Korea escaped from the poverty line, and improved their living standards in an absolute sense. However, there was still growing inequality between those in the rural and the urban sectors of

TABLE XLVI

COMPARISON OF THE HOUSEHOLD INCOME BETWEEN FARM AND URBAN WAGE EARNERS, 1960-80

(unit, won; %)

Household Income	1965	1970	1975	1980	1965-80
Nominal Income					
Farm (A)	112,201	255,804	872,933	2,693,110	2,580,909
Urban (B)	112,590	381,240	859,320	3,205,152	2,892,202
Ratio (A/B)	99.7	67.1	101.6	89.6	89.2
Real Income (1975)					
Farm (A)	447,016	580,054	872,933	999,299	552,283
Urban (B)	409,309	776,456	859,320	1,448,329	1,039,020
Ratio (A/B)	109.2	74.7	101.6	69.0	53.2

Source: Ministry of Agriculture and Forestry, The Farm Household Economy Survey. (Seoul: Ministry of Agriculture, Republic of Korea, 1965-1980).

Note: The real incomes are 1975 constant prices.

the economy. The farm income per person in 1975 was also lower than the income per head of the urban wage earners, considering the fact that the numbers in a farm household and the urban wage earners were 5.57 and 5.15 persons respectively. Based on the number of households, the monthly income of the farmer was 156,700 won and that of the the urban wage earner was 166,900 won. As a result, the farm income per person of the other years was, needless to say, lower than that of urban wage earners. The reason why the farm income was highest in 1975 was mainly due to the government's favorable policy to the agricultural products, especially to the rice and barley which were major sources of farm income.

The evidence of a growing disparity between rural and urban incomes led to a number of outcomes. Among them was the adoption of a two-tier price system, and the nationwide Saemaul Undong or New Community Movement. The two-tier price system involved government purchased commodities at a relatively high price from farmers and selling them at relatively low prices to urban consumers, especially in the off season. The Saemaul Undong was geared to upgrade the quality of rural life by promoting cooperation, self-help, and a transformation of the traditional rural attitudes. In spite of all the measures to improve the rural level of living, the undeniable fact was that the structural inequality between the two sectors never disappeared in Korea but instead, became more serious.

The income disparity tells us that a majority of the South Korean population still remained low-wage laborers, and thus, economic growth had not benefited them much. This also implies that the remarkable growth in per capita income in the 1970s was a reflection of the wide gap between the wealthy few and the poor masses. Because of the difference in the amount of investment in the different economic sectors, the unequal distribution of income among them, the people who worked in them, and the regions in which they were located was unavoidable. Therefore, some groups enjoyed the fruit of development, while others were more frustrated either because the absolute or relative incomes failed to rise in comparison with other people. So the income distribution assumed greater importance, certainly in the minds of the disadvantaged. It eventually spilled out in several labor revolts in the latter part of the Park government, despite enforced prohibitions on organized labor.

Formation of Class Structure

In addition to the income disparity in Korea, the class structure of the society was very important sociologically. The historical experience throughout the world has shown that the radical social changes were not necessarily caused by the amount of inequality in an absolute sense between groups in the society, but their perception of the nature of the social structure. Unfortunately, there have been only a few studies available in terms of understanding the social change from the point of view of class stratification in Korea. This was partly because of the political climate of authoritarianism that prevailed in the country and partly because of the influence of the functionalist paradigm in social science which influenced the kind of issues and interpretation of these issues studied by social researchers. Yet, as indicated above, an objective and detached analysis of class formation would be essential to understand the nature of social inequality in Korea.

Unlike many other countries in the Third World, Korea entered the development era of the 1960s without any legacy of an old and rigid class system. As already pointed out in Chapter IV, the Korean agrarian upper class was completely dissolved by a series of historical events which took place in the modern era, the Japanese occupation, the post independence land reform, and eventually the Korean War. In this respect, Korea had been fortunate compared to many other Southeast Asian neighbors or Latin American countries. Therefore, the formation of class structure in Korea could largely be explained as an outcome of the development model used in the country, more specifically the export-oriented, labor intensive industrialization policy pursued by President Park since 1961.

The precise extent of class stratification and its change over time cannot be determined with any degree of accuracy from the existing and official data.[11] It could only be estimated roughly by using census material. Table XLVII shows the change of class distribution for 1960s and 1970s. Of particular importance in the table was the remarkable growth in the number of industrial workers. Between 1960 and 1980, the size of this working class increased by 2.54 times in percentage. However, the proportion of farmers declined from 40.0 percent to 23.2 percent between 1960 and 1980. The new middle class had increased 1.84 times in terms of its proportional change, which was certainly much more than what might have been expected from the Western experience. If the new middle class was supposed to expand with industrialization, the petty bourgeoisie or the old middle class was assumed to have disappeared gradually. This Western experience, however, was not repeated in Korean industrialization. With the remarkable expansion of export industries, the middle class doubled its percentage in the population, and the marginal class in rural and urban areas decreased correspondingly.

The quantitative changes of the class position showed a general trend towards the emergence of a class structure shaped by industrialization. However, a more important issue

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[11] The class positions are not identical with social classes. Class position is a broader term which includes social classes.

TABLE XLVII

CHANGE IN THE PROPORTION OF EACH CLASS POSITION, 1960-80

(unit, %)

Class Category	1960	1970	1975	1980	(1980/1960)
Upper Class	0.9	1.3	1.2	1.8	2.00
New Middle Class	9.6	14.2	15.7	17.7	1.84
Petty Bourgeoisie	13.0	14.8	14.5	20.8	1.60
(Self-Employed Prof.)	(0.3)	(0.5)	(0.6)	(0.6)	2.00
(Self-Employed Merch.)*	(6.7)	(9.6)	(9.7)	(12.0)	1.79
(Self-Employed Service)	(0.4)	(0.5)	(0.6)	(0.8)	2.00
(Self-Employed Crafts)	(5.7)	(4.2)	(3.6)	(7.4)	1.30
Working Class	8.9	16.9	19.9	22.6	2.54
Marginal Class (Urban)	6.6	8.0	7.5	5.9	0.89
Independent Farmers	40.0	28.0	28.2	23.2	0.58
Marginal Class (Rural)	24.0	16.7	12.9	8.1	0.34
Total	100.0	100.0	100.0	100.0	
(N)	(5,210,137)	(59,332)	(61,715)	(154,630)	

Source: Adapted from Doo-Seung Hong, "An Analysis of Occupations for Stratification Studies: With Reference to the Korean Standard Classification of Occupations," Social Science and Policy Research. Vol.5, No. 3, 1983, p. 81

Note: * As managerial workers, the small self-help employed and the employer are included.

concerns the subjective aspect of the class formation, that is, the nature of the dominant relations of inequality in the emerging class structure. The industrialization in Korea had brought about the rise of two principal classes in a capitalist society, the capitalist class and the industrial working class. The real problem was the phenomenal gap between the newly rich and the mass of the population.

The emergence of a new economic upper class or *jaebol* based on ownership of a group of large enterprises was one of the most significant phenomenon during this period. This class accumulated enormous capital through its intimate connection with foreign capital. Of course, it was a well

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known fact in Korea that no large-scale business was possible without the special favour of the State. The *hard state*[12] in G. Myrdal's term could initiate another *jaebol* (or destroy an existing one) almost overnight. In any case, for economic and political reasons, the Korean government supported a few selected large industrial groups with the disproportionate amount of foreign aid in the form of domestic financial capital. Though the policy might have been a rational one from a purely economic point of view, it had a generally negative social impact. Understandably, people resented the amazing amount of wealth accumulated by a few fortunate business tycoons and their immediate relations. It was important to remember that it was not recently gotten wealth itself that people opposed, but the way in which the wealth was accumulated. This resulted in the saying that "the business might go bankrupt, but the owner will prosper."

Another probably more important change brought about by the export-oriented and labor-intensive industrialization was an enlargement of the industrial working class. The class position of Korean industrial workers was determined most directly by the way in which the Korean economy was integrated into the world economic system. Both policy makers and industrial entrepreneurs correctly perceived that cheap labour or exploited labor was South Korea's only abundant resource and that industrial wages had to be kept low and laborers be strictly disciplined.[13] Under these requirements and the strong commitment to industrialization, it was necessary for the State to involve itself actively in the labor process. Labor unions were allowed to exist but without independent bargaining power, and strikes in enterprises with foreign investments were made illegal under the Park regime. However, this began to cause labor unrest and sporadic outbursts in the late 1960s. Gradually, the labor problems emerged as one of the most sensitive social problems in the public arena. There were built-in difficulties to improving the wage levels and working conditions of those in the export-oriented economy.

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[12] The *hard state* may be called authoritarian or autocratic government.

Compared to the working class, the new middle class seemed to have benefited more from Korean development. At least two factors were responsible for this fact. One was the marked status differential between manual and mental work, which exists in most societies but seems stronger in a Confucian-dominated tradition. The other factor was purely economic. As indicated in the first section of this chapter, there were striking income differences between white-collar and blue-collar workers. Due to the overall decline and neglect of the agricultural sector, the socio-economic position of independent middle class farmers seemed to have also declined substantially relative to other sectors of the middle class. By contrast, the urban sector of the petty bourgeoisie did not experience decline--neither in size nor in its overall class position.

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[13] See Economic Planning Board, Republic of Korea, Guide to Investment in Korea, Seoul: Economic Planning Board, Republic of Korea, pp. 45-6.

There were also marginal classes in urban and rural areas. In spite of the rapid creation of industrial jobs, a sizable proportion of the urban population was engaged in marginal activities. Peddlers, casual daily laborers and domestic service workers constituted a marginal class is two ways: they were marginal to the mainstream of the society, and in their economic situation because of their insufficient and unstable income.[13]

The position of small farmers in the rural sector was somewhat ambiguous. As indicated earlier in this chapter, the rural sector as a whole had not benefited very much from the pattern of development. In spite of the positive changes in the absolute sense, it could be argued that the overall economic position of small farmers and farm laborers had become increasingly marginal and precarious.

What has been found from this brief analysis was that the evolution of the class structure of Korean society in the past two decades has led to a gradual convergence of class situation. It is not argued that Korea has become a fully and rigidly structured society, but it has been moving in that direction. The upper classes, the power elite and the large

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[13] That is, unlike factory workers, they were detached from the dynamic and modernized sector of the economy.

capitalists, have definitely benefited from the rapid economic growth. The middle classes, particularly the new middle class, have also enjoyed a sizable share of the fruits of industrialization. At the bottom of the social structure, there are largely three groups, the industrial working class, the urban marginal class and the agricultural workers accounting for about three-quarters of the population, sharing basically the same marginal position. Although their objective living standards had improved noticeably over the years, a widening socio-economic gap had grown between themselves and the classes above them. Whatever the reason for this, these blatant inequalities have existed in Korea,and still do. The rich had grown richer while large segments of the poor had remained helplessly impoverished as a result of the deliberate government development policy.

The Educational System as a *Gate-Keeper*

Under the class structure of Korean society, the school system as a part of the overall social system became an instrument mainly of the bourgeoisie or capitalist class maintaining the existing status differentials in the society. The capitalists held the privileges primarily because of ascription, and it was based on usually covert but sometimes overt forms of exploitation. It appeared as if the system was based on merit and ability, but in fact this was not the case.

However most people accepted this myth and so became reconciled to accepting their inferior positions in society.

We need more research on how the privileged group perpetuated their power based partly on an educational system which on the surface appeared quite fair. In order to answer the question, it is necessary to study the role of the educational system in the areas of (1) selection by examination, (2) the system of private tutoring, and (3) schooling fees and scholarships.

Selection System by Examination

Distribution of educational opportunity is the outcomes of the educational selection process. In this regard, there has always been a certain type of selection process through the whole school system in Korea. As indicated in Chapter V, primary schooling has theoretically been compulsory, universal and tuition-free since 1948. In fact, however, universal education was achieved only in the third five-year plan period (1972-76), though there were always some costs associated with school attendance. Entry into middle school was very competitive until 1969 and the examination was abolished only after that year. Based on the *equalization policy* in 1973, high schools selected the students through the regional consolidation test which allocated them to schools. Until the late 1970s, selection for university was based entirely on the result of the entrance-examination system.

Although there had been numerous modifications in selection methods for each education level, there were no basic changes in the nature of the selection system. As in many other developing countries, examinations or paper tests were the dominant elements in the education selection process in Korea. First of all it was a competitive rather than qualifying examination. Under the given quota system, selection was made generally on the examination results, and no special consideration was given during the stage of training or graduation. Text book knowledge was a major criterion for success at the examination. Physical fitness tests were also sometimes adopted. However, this was nominal as a criterion for selection.

Undoubtedly the system of selection based on formal academic performance would tend to favour children of elite homes, and they would be the major recipients of the extended educational opportunities. This often resulted in the *squeezing out* of children of less privileged groups from post-primary education, because access to a higher level of school was limited.

An interesting question is "What were the major facts behind this educational selection mechanism in Korea?" In general, it depended on language quality or more narrowly on one's vocabulary--the understanding of the meanings of the words. B. Bernstein pointed out that a child of the working class was at a disadvantage compared to a middle class child in terms of language facility. The spoken language had a central role to play in the educational process, and it was not surprising, therefore, that some children were handicapped because of their language background long before they reached the age of compulsory schooling. In other words, the working class child was inclined to use a restricted code of language in which the selection and manipulation of words was severely restricted (Soo-Hyang Choi, 1990). Middle class children, on the other hand, had an extended language code which served them well in the educational process and resulted in their better performance at the selection examinations.

Furthermore, in Korea as in many other countries, parents, teachers and students retained a depressingly uncritical view of the internal biases of the selection examinations. They considered the examinations to have the same neutrality as thermometers or other implements of measurement. In practice, however, examinations could contain many biases. For example, when rural and urban children with the same IQ are taught with culturally urban-based curriculum content, their academic achievements are likely to be different. Predictably, the rural children got higher marks from the rural-based curriculum content, and the urban children did the same from the urban-based curriculum content. A more important point here was the fact that it was indeed problematic to decide on students' admission from the results of the culturally-biased examinations. Of course, it would be difficult to say that the difference of academic achievement between rural and urban areas was solely due to the urban bias in the curriculum content. However, school records clearly showed internal biases in these selection examinations. This kind of point could be made not only in connection with regional differences, but also with the social differences and academic achievement.

So far, the discussion has focused mainly on general features of the educational system which functioned as a *gate keeper* of educational opportunity under the class system. In the next two sections, the analysis will be concentrated on unique aspects of the educational system itself in Korea.

Private Tutoring System

The class effects, which were independent of a student's demonstrated ability, became even more exaggerated through private tutoring. The term private tutoring might be used to include all educational efforts, other than school education, to prepare children for the entrance examination at the various levels of the educational system. It was generally regarded that the provision of various forms of additional education facilities, such as attendance at private institutes or lessons from household tutors would aid children in their preparation for the examinations. Through this private tutoring, the upper-class families could provide their children with an additional competitive edge for these selection examinations.

As indicated in Chapter V, private tutoring had a long history in Korea. It may be traced back even as early as the 1950s, when the adverse effects of preparation for admission to first-rate middle and high schools provoked controversial issues in educational circles. In order to cure the educational pathology, a series of policy measures were taken, such as the abolition of entrance examination to middle school and the policy for equalizing high schools being prominent. The immediate result was the disappearance of the first-rate middle and high schools, but it failed to put an end to the fever for elite universities. The private tutoring was also renewed until July 30, 1980, when the new republic prohibited it by law.

What made it inevitable to rely on private tutoring for entrance to higher level of education? And why did the equalization policy for high school encourage private tutoring particularly? There were obvious reasons why the children of the privileged classes should achieve higher rates of success in the competition for entry into the more prestigious institutions. As discussed earlier in this section, the educational process in Korea was an examination or paper test which was based on fragmentalized textbook knowledge. Private tutoring, therefore, was as prosperous as it was effective as a means of increasing the chances of individuals passing the selection test.

As part of the process of *equalization* of educational opportunities, high schools had become fairly comparable in terms of teachers' quality, school facilities and the mode of operation. With the disappearance of the handful of first-rate high schools, high school education became a flat scene. As a result, ambitious parents no longer expected their children to have an edge over others in the competition. It was in this situation that the desire for private tutoring was rekindled as a means of enhancing the chances of some children entering the elite universities.

As Table XLVIII shows, the private tutoring helped to ensure that students passed the hurdles of the selection process by focusing on the examination system. In this regard, it can be said that the high school education could not compete with the private tutoring for university entrance examinations, and remained an institution which mainly provided certificates of attendance at school. Therefore, those who received the private tutoring for university entrance examinations had the advantage in the selection process.

Table XLIX identifies the major characteristics of the recipients of private tutoring, the students' academic achievement, parents' education level and family income.

TABLE XLVIII

COMPARISON BETWEEN EQUALIZED HIGH SCHOOL EDUCATION AND PRIVATE TUTORING FOR EXAMINATION

Equalized High School Education	Private Tutoring for Examination
Students assigned within district	Selected small group of students
Formal schooling	Preparing for examination
High school teachers	Examination specialists
Tuition fees	Special fees on contract basis
Qualifying for examination	Having impact on examination

Source: Modified from Chong-Jae Lee, "Thoughts on Equality of Educational Opportunity in Korea." A paper submitted to the pre-congress of the World Council of Comparative Education Societies, July 3-5, 1980, Seoul, Korea.

TABLE XLIX

MAJOR CHARACTERISTICS OF THE PRIVATE TUTORING RECIPIENTS

(Unit, %; Thousand Won)

Major Characteristics	Elementary School	Middle School	Academic High School	Vocational High School
Academic Achievement				
Upper	21.4	25.3	36.8	20.2
Middle	16.1	20.2	27.6	16.9
Lower	11.4	14.2	23.9	17.3
Parent's Education Level				
Over College	35.7	41.4	49.5	34.6
High School	18.5	24.3	33.3	22.6
Middle School	8.9	14.3	22.3	18.2
Elementary School	6.7	8.3	12.1	12.3
No Schooling	1.6	6.9	8.1	9.6
Family Income				
Below 200,000	8.5	14.0	24.3	14.0
200,000 to 400,000	17.9	21.4	26.8	20.2
400,000 to 500,000	28.6	33.3	43.0	24.6
Over 500,000	42.6	45.5	52.8	33.0

Source: Compiled from Young-Chul Kim et al., Toward the Normalization of School Education by Eliminating Private Tutoring (Seoul: KEDI, 1981).

According to the survey conducted by the Korea Education Development Institute in 1980, 14.9 percent or 1,465,061 students of the total students of 9,826,791 had received private tutoring (Young-Chul Kim et al., 1981) About 26 percent of students who attended the academic high school that was directly associated with the university preparatory course received private tutoring. More specifically, it can be seen that students with high grades received more private tutoring than those with lower grades. The data also indicated that the parents with more years of schooling and higher household incomes had a higher percentage of private tutoring, at all levels of education. It might be necessary to note that even in the group receiving below 200,000 won as family income, a relatively high percentage of the students in academic and vocational high school students had private tutoring.

As Table XLIX implies, these private tutoring activities were not cheap, and certainly, not all families were able to afford or willing to incur these expenses. A survey reported that the tuition fee for private tutoring ranged from roughly 50,000 won to 1 million won per month (C. J. Lee, 1980:25). There were substantial differences in private tutoring expenses according to parental income and social status.[14] Expenditures on private tutoring tended to increase with income and roughly the same trend existed for the socio-economic background of the students.

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[14] Total expenditure on private tutoring in Korea in 1980 was assumed to be 327.5 billion won, equivalent to 6 percent of the government budget or 30 percent of the MOE budget in the same year (Young-Chul Kim et al., 1981).

As a result, family background seemed to emerge as an important variable in the competition to pass the examination to schools with high reputation. It also affected the competition behavior of children. While the upper-class families were willing to pay very high fees for private tutoring, the children from lower class families had to abandon or postpone their desire to get more education. As a result, the relative distribution of educational opportunities among the underprivileged group has not changed very much in spite of the rapid expansion of education in Korea.

Private Portion of Educational Expenditure

Willingness and ability to pay the educational expenditures was another factor affecting the children's aspiration and ability to continue their education, particularly, after the period of compulsory education was completed. Table L shows the annual tuition fee per student by education level in 1977.

Since the table was based on the average between minimum and maximum amounts, the figures represent only a general picture. The registration fees were a considerable burden to the students and their parents. Except in the middle school, the fees for private schools were higher than those for

TABLE L

ANNUAL TUITION FEE PER STUDENT BY EDUCATION LEVEL (1977)

(Unit, Won)

Type of School	Entrance Fee	Class	PTA	Experiment & Practice	Student Organization	Total
Elementary School						
National & Public	-	-	4,500	-	-	4,500
Private	1,465	29,700	22,200	-	-	53,365
Middle School						
National & Public	3,150	42,600	21,300	950	1,405	69,405
Private	3,150	42,600	21,300	950	1,405	69,405
Academic High School						
National & Public	3,715	69,240	28,200	1,260	3,000	105,415
Private	3,715	77,820	28,200	1,260	3,000	113,995
Vocational High School						
National & Public	3,715	61,680	28,200	1,640	3,000	98,235
Private	3,715	77,820	28,200	1,640	3,000	114,375
Junior College						
National	-	-	108,755	-	-	108,755
Private	41,100	179,000	99,450	18,500	15,000	353,050
College & Univ. (Human Sci.)						
National & Public	1,800	44,400	136,360	-	-	182,560
Private	42,150	223,930	120,500	11,800	30,200	428,580
College & Univ. (Natural Sci.)						
National & Public	1,800	44,400	153,800	-	-	200,000
Private	42,150	259,790	130,800	49,950	29,700	512,390

Source: Compiled from Chung-Il Yun, The Status and Problems of Educational Expenditure in the Republic of Korea (Seoul: KEDI, 1979), p. 84.

Note: - denotes that fees are not required.

national and public schools, and the gap was getting even wider at higher levels of the educational system. Considering the high proportion of private schools in secondary and higher education, therefore, the registration fees were a considerable burden for some students and their parents.

As indicated in Chapter IV, the educational costs also include indirect outlays such as textbooks and instructional supplies, extra-curricular activities, and transportation. In 1977, a study reported that the annual expenses per student were 33,293 won in the elementary school, 39,766 won in the middle school, 64,572 won in the academic high school, 66,090 won in the vocational high school and 160,904 won in the university (Chung-Il Yun, 1979:125). Living expenses were an additional problem for the students, especially for those not living with their parents. Lack of dormitory facilities was characteristic of most universities, and this forced all students living away from home to take rooms in boarding houses.

In analyzing the public and private expenses of education, the important role played by the parents of the school children should not be under-estimated. Young-Bong Kim assumed the total educational expenses per students in 1974 were 14,298 Won in elementary school, 65,513 won in middle school, 86,116 won in high school, and 262,646 won in university (1976:37). Considering that the average total GNP per capita in 1974 was 208,000 won, the total income per family (average number in family reckoned at 5.2) being 208,000 won x 5.2 = 1,081,600 won, the amount of money spent on education by the parents represented a heavy burden on the household.[15] In the case of a family sending one child to elementary school and another child to middle school, the burden on the household amounted to 79,811 won and its percentage to the total household income was 7.4 percent. Moreover, the existence of high fees relative to the family income constrained access to schooling, particularly of the rural poor and probably more for girls than for boys, simply because the girls were often expected to undertake more housework than the boys.

Under the circumstances, there were two possible solutions to an expansion of the educational opportunities for secondary and higher education for the children of the low-income family: first, increasing the government's share of the public educational expenses would lessen the parents' burden; second, increasing scholarship aid for the children of academic competence from low-income family background would also be of help. Unfortunately, however, these two policies were not being pursued by the educational authorities in Korea.

Table LI shows the relative share of the educational expenditure borne by the government (central and provincial),

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[15] See Bureau of Statistics, EPB, ROK Korea Statistical Yearbook, 1975.

TABLE LI

PERCENTAGE DISTRIBUTION OF TOTAL PUBLIC EDUCATIONAL EXPENDITURE BY SOURCES OF FUND, 1960-79

(Unit, %)

Classification	1960	1970	1976	1979
Total				
Government	48.7	48.0	47.3	51.5
Parents	34.8	43.9	49.1	40.7
School Jurid. Person	5.3	7.1	3.0	6.7
National & Public				
Government	77.5	69.6	69.5	77.2
Parents	22.5	30.4	30.5	22.8
School Jurid. Person	-	-	-	-
Private				
Government	3.0	3.0	4.7	5.1
Parents	54.5	72.1	84.8	73.0
School Jurid. Person	13.6	21.9	8.7	18.7

Source: Korean Educational Development Institute, Educational Indicators in Korea (Seoul: KEDI, 1986), p. 96.

Note: - denotes "not applicable."

parents, school juridical person for all schools, both public and private. The government's share was only 51.5 percent of the total public educational expenditure and the major share of the balance being met by the parents in 1979. There were no major changes in this trend through the period under study. Further, the government share of the public educational expenditure was mainly concentrated on primary education (See Appendix Table XII). Looking at the public educational expenditure, the sources of funds and the level of education in 1979, it was generally found that the government reduced its share of the expenditure, except in respect to teachers' colleges. Unlike many other countries, the principle appeared to be that as financial benefits to the individual rose with increasing levels of education, there was equity in transferring more of the financial burden to the parents for the higher levels of education.[16]

Scholarships for students in need would be a key to the solution of the problem coming from the excessive financial burden of education. But the number of scholarship recipients and amount of scholarships available was nominal as shown in Table LII. As the table indicates, the number of scholarships was still agonizingly few, and most of them consisted of waivers of tuition fees. Even the exemption from tuition fees was concentrated on the students from the relief military and police service. The amount of scholarship aid and free tuition was also far below the total educational expenses per student. The source of the funds was the institute's incomes rather than government support. In considering the financial situation of the schools, it was not possible to see any dramatic increase in the number or amount of scholarship aid and free tuition.

The financial support originally was intended to help students with the equalization policy. Implicit in this contention was the assumption that something should be done because some students were poor. Unfortunately, however, when selection of scholars was made, it often turned out that more

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[16] A high subsidy to secondary and higher education prevails not only in developing countries but also in developed countries, e.g. the U.K, and the USSR (see Kamat,1972: 1235) as well.

TABLE LII

PERCENTAGE DISTRIBUTION OF THE TOTAL PUBLIC EDUCATIONAL EXPENDITURE BY SOURCES OF FUND AND BY LEVEL OF EDUCATION (1977)

(Unit, %)

Level of Education	Government	School Jurid. Person	Parents	Others
Elementary School	94.5	0.1	5.2	0.2
Middle School	22.4	1.1	74.1	2.4
High School	28.5	1.7	67.4	2.4
Teachers' College	84.1	-	8.4	7.5
University	25.6	2.5	64.3	7.6

Source: Adapted from Chung-Il Yun, op. cit., p. 91.

TABLE LIII

THE RATIOS OF THE SCHOLARSHIP AIDS AND FREE TUITION FEES (1978)

(Unit, %; Won)

Classification	Total Number of Students (A)	Number of Scholar. Students (B)	Number of Tui. Free Students (C)	Ratio of Recipients (B/A)	Ratio of Recipients (C/A)
Middle School	2,298,124	70,980	465,437	3.1	20.3
Academic High	839,603	37,928	231,674	4.5	27.6
Vocational High	614,773	45,935	185,376	7.5	30.2
Higher Education	308,730	18,327	11,130	5.9	36.6

Source: Adapted from Mu-Ki Bae, op. cit., p. 352.

rich students were chosen, rather than the poor, simply because of the selection criteria. The general criteria for the granting of scholarships was the student's academic achievement and the financial state of the student in Korea. The former often took precedence over the latter. Therefore, the method often used had the opposite effect of what was intended in regard to equalization of educational opportunity since the awards were to the children of the more well-to-do parents.

Mismatch Between Manpower Demand and Supply Under High Economic Growth

In Chapter V, it was pointed out that there had been a big gap between actual outcomes of the educational system and the educational plans to match manpower demand and supply. As a result, there was an overall difference between total demand and supply of the educated labor force, and there were structural imbalances between education and occupation during the study period in Korea. Under the circumstances, a question was raised: "Why was there such a mismatch between manpower demand and supply?" Two related questions were also raised. (1) Why did high unemployment and underemployment rates among the educated occur during the period of a relatively high growth rate in the economy? (2) How could the structural imbalances be explained? In order to answer these questions, this study examined two dimensions: one at the societal level and the other at the institutional level. The former considered the political economy of manpower demand and supply, and the latter examined the rigid educational system responding to industrial need.

Political Economy of Manpower Demand and Supply

Educational systems in general are interlinked with other institutions of society, such as the political and the economic systems. From the supply side, the political nature of the authoritarian Park's regime and from the demand side, the models of economic development were considered in explaining the mismatch between manpower demand and supply of educated manpower in Korea.

Political Constraints of Authoritarian Regime

As indicated in Chapter IV, the Park regime as a military government faced problems of legitimacy through the whole period of its rule. Because of this lack of legitimacy, the government was interested in controlling the higher educational system, which became a center of the political disputes of the nation since the 1960s. In other words, political rather than academic considerations determined the major educational policies under Park's government.

The authoritarian military regime tried to strengthen the state's unitary control over the schools. The main controls were exercised by the Ministry of Education which was reorganized in December, 1963, in connection with the campaign against corruption. The Ministry of Education called on schools to rigidly observe regulations on enrolment ceilings and to dismiss incompetent, draft-dodging or concubine-keeping educators.[17] The ministry gained a free hand in appointing university presidents without the recommendation of the faculty. The new authority also enforced the use of certain military style costume with uniforms, caps and badges for male students and personal appearance without high heels, parasols, manicured finger-nails or fancy coiffures for the girls.[18]

There were no other educational policies which involved direct control by the government over the system of students' quota in Korea during the Park regime. During the period of the regime, there was a measure referred to as "Towards the Reorganization of Higher Education" in the early stage and the "Ordinance of Student Quota System" in the latter stage of the government. A close examination of the political constraints exerted by the control mechanism of the state would make clear why there was such a gap between actual outcomes of the educational system and the educational plans to match manpower demand and supply as suggested in Chapter V.

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[17] As a result of the regulation violation, 281 educators from elementary schools, 132 from middle and high schools and 107 professors from colleges were forced out of their jobs (Kak Kim, 1962: 21).

[18] Of course, the military government showed keener interest in the welfare of teachers and students. The MOE established an overall transfer of teachers in an attempt to offer them equal treatment and opportunities, and set up a loan scholarship system, especially for the students from bereaved families (McGinn et al., 1980: 35).

The Reorganization of Higher Education Act was based on the Law of Temporary Exceptions on Education (Law No. 708).[19] The Law authorized the military government to reorganize the schools, departments, and student quotas regardless of whether the educational institutions affected were national, public or private. The principles of the reorganization were as follows:

(1) Independent Colleges were to be incorporated into the university(ies) located in the same geographic area.

(2) Regional units were to be formed on a geographic and political basis, if two colleges of the same kind were found within the unit region, one should be abolished.

(3) Departments in teachers' college which overlapped with those in liberal art colleges were to be discontinued.

(4) Normal schools were to be abolished and in their place, two-year teachers' colleges developed.

(5) With regard to four-year evening colleges, priority was to be given to those institutions which were financially sound and served employed persons.

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[19] The Law of Temporary Exceptions on Education was justified to support the qualitative improvement of the college education. The Law included the organization and operation of the Educational Reconstruction Advisory Committee, the Principles of Reorganization of Higher Education, Ordinance of examination for bachelor degree, and qualification screening of professors, etc.

(6) Existing junior colleges and those four-year colleges were to be eliminated and reorganized into junior colleges specializing in vocational and technical education for boys.[20] (MOE, ROK, 1965: 5-14).

It is worthwhile to note that the reorganization policy was the first attempt to decide the number of students based on the manpower plan and that it was possible for the state to bring about the policy through direct control over all educational institutions. As indicated above, the military government tried to establish its legitimacy firmly by inducing public opinion to regulate the unemployed and improperly-run private universities. Taking advantage of the Students' April Revolution, the student movement rose as a unique social movement and became a grave menace to the unpopular government. The Reorganization of the Higher Educational Institutes in this situation was a means to control the quantitative expansion of this powerful group. Understandably, reducing the size of the student quota meant a reduction in educational finances for the private universities as well, since they relied mainly on the tuition fees of the students.

The reorganization movement, which was impractical from its inception, brought many problems in the process of its implementation. Basic objections to the measures, as identified by the Ministry of Education in December, 1962, were as follows:

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[20] Based on the reorganization of the higher educational institutes, the first Five-Year Plan announced the student quota would be reduced from 142,000 in the base year of 1961 to 52,000 in the final target year of 1966 (See Chapter IV).

(1) Public and educational administration in Korea had traditionally been the responsibility of a single provincial unit, but the educational reorganization plan proposed to make two provinces a unit region.

(2) The supply and demand for college graduates had not been analyzed in a precise way in the preparation of the reorganization plan.

(3) The reorganization plan gave inadequate consideration to the facilities in existence, with the result that some excellent facilities where colleges or departments were discontinued or put into disuse.

(4) The reorganization plan particularly hurt private institutions, since reduction in student quotas meant tuition losses which in turn resulted in a lowering of instructional standards.(Adams, 1965: 20).

Under the situation, the subcommittee of the Educational and Social Affairs of the Supreme Council for National Reconstruction reappraised the reorganization policy and by the opening of the new school year in March, 1963, a significant readjustment had been made to the original plan. In 1964, the student quota was about 200,000 more than the original one, and this brought a significant increase in the number of new higher educational institutes such as two-year teachers' colleges and vocational colleges. The result was a mismatch between the actual outcomes of the educational system and the earlier educational plans mentioned in Chapter V.

Of course, as Sung pointed out, reformulation of the original plan was not just because the original policy could not bring about a qualitative improvement of higher education. The more important reason was political: preparation for the election of 1963.

> Politically, the year 1963 was for the election to return to civilian government. The political leaders spent their time rallying for the voters' support--in line with the fact the educational policy was mainly a vote-getting strategy. The basic motives were identified. For example, in the case of higher educational policy, [the government] not only permitted the restoration of the closed colleges and departments but also approved the establishment of new ones, and an increase of about 200,000 students . . . . This was certainly an aspect of educational policy responding the political trend of pseudo-mercy (Rae-Woon Sung, 1965: 7-8).

Since the military coup d'état of May 16, 1961, the state's control of education was reinforced through the Ordinance of the Student Quota System. The first ordinance was proclaimed in December 22, 1965 (President's Ordinance No. 2,331). The major contents of the revised ordinance were as follows:

> (1) The head of higher educational institutes should announce the students to be admitted only after they have received the permission from the Ministry of Education (MOE). Otherwise, their admission shall be cancelled.
>
> (2) The head of higher educational institutes should keep admission documents submitted by the students for registration. The Ministry of MOE should be informed of the list of the registered student within a month, and should publicize it.

In particular, the Ordinance of Student Quota System was implemented even more effectively after the preliminary test for admission to university was introduced in 1969. The preliminary test's function was to control the excess of the student quota caused by the individual test of each institute. Through the president's ordinance, the decision- making process in relation to the student quota was gradually monopolized by the state. Before the Ordinance, the decision was made by the MOE. However, it was necessary to have a cabinet meeting to revise the student quota for each single department or college.

As in the case of the Reorganization of the Higher Educational Institutes, the state's direct control of the student quota proved to be affected by political factors. This will be more clearly shown in the decision-making process in relation to the student quota. As shown in Table LIV, there were many factors in the decision-making process. It was not possible to know which of these were most influential. The dynamics of the variables were not only composed of direction, advice and request, but also included negotiation and persuasion. In particular the third stage would be compared to a *black box*. But it was evident that the political leaders' influence took precedence over that of the educational professionals on decisions dealing with manpower demand and supply. As a result, it was said that the decisions relating to the optimum size of higher education institutions was made out of whole cloth (quoted in C. J. Lee, 1980: 147).

TABLE LIV

THE DECISION-MAKING PROCESS OF THE STUDENT QUOTA OF THE HIGHER EDUCATIONAL INSTITUTE

Stage	Activity	Influencing Structures	
		Legal	Outside of Legal
I	Preparing of guidelines by MOE	Advice from President's Office, other Ministries including EPB, Directions from President and/or Premier	Advisory Committees
II	Communicating the guidelines to the Colleges and Universities	Report to MOE concerning Size of Student Quota from the Universities	
III	Decision-making on the total and institutionsal sizes of the Student Quota	Advice from the President's office, other Ministries, Education and Information Committee of Parliamentary House	-
IV	Approval of the above decisions and passing on the results to the Universities	Report from Universities Recording the information to the regulations	Research Institutes (KDI, KEDI, KAIST, KIET) Public Opinion including Parents, Request of Advisory Committees, Political Parties, Teachers' Association

Source: Based on Moo-Sub Kang et al., A Study on Enrolment Policy of Higher Education in Korea (Seoul: KEDI, 1986), pp. 30-33.

Employment Structure Created by the Pattern of Dependent Development

The demand for manpower was closely related to the changing nature of employment which was brought about by such economic circumstances as economic growth and industrial structure. In other words, the increased demand for educated workers depended heavily on the expansion and growth of the economic enterprise. That is the key factor reconciling both manpower demand and supply. In the periods of rapid economic growth, no contradiction usually arises even if the occupational expansion exceeds increases in the educational output, because firms will have an incentive to train and upgrade existing workers. But, when the level of economic growth is not adequate to absorb the increase in educated workers at appropriate occupational levels, an obvious mismatch arises between manpower demand and supply.

Despite the above statement, the situation was different in Korea. Between 1965 and 1979, Korea recorded a remarkable economic growth which included an annual average increase rate of 9.6 percent in the gross national product (GNP). The GNP per capita, which was U.S. $87 in 1962 rose to U.S. $1,662 in 1979. However, Korea experienced a strong sign of underemployment of the university graduates between the 1970s and 1980s as discussed in Chapter V.

In order to explain the circumstances, it is necessary to examine the dependent pattern of export-oriented industrialization during the period under study. The labor-intensive nature of investment was evident in the concentration of foreign capital in textiles and clothing, and in electronics. Heavy industries, on the other hand, were responsible for smaller percentages of the total investment. Consequently, much of the labor-intensive, assembly-type industry that had been developed in Korea was one simple cog in a larger international machine operated by multi-national corporations. Semi-processed materials and components from the developed countries were shipped to Korea, finished, and re-exported. The processes involved in this type of production were more simple and required less technological expertise. Furthermore, the activities were highly restricted and regularized by the nature of the job.

The lopsided pattern of industrial development increasingly made the organization of work more complex, but the process remained hierarchical and fragmented. Typically, the work places were characterized by (1) a large number of low-level workers at the bottom, (2) a small number of more highly skilled and supervisory-level workers in the middle, and (3) relatively few people representing the various levels of management at the top. This pyramidal form of organization was based upon a fragmented division of labor, with most workers belonging to the category which was required to perform repetitive and routine activities. Such fragmentation of the productive process also often occurred at the higher levels of work. Only a few managers or executive members at the very top of the organization were able to comprehend the entire production operation. Modern production technology allowed for division of tasks and allocation of these tasks at all levels of the occupational hierarchy.

The employment opportunities therefore also followed the pattern of fragmented division of labor. As Frobel et al. (1980) pointed out, the most outstanding characteristics of the employment structure in Korea were attested in the free production zones and world market firms. The overwhelming majority of the employed were young women aged between 16 and 25 years. The selection criteria were quite clear. The workers who were chosen were those who (1) were able to work for the lowest wages, (2) were the most productive (could be expected to work at a high intensity), and (3) unskilled and semi-skilled. At the same time, the employment opportunities for skilled labor receiving high salaries were limited. The inherent structural limitations of employment opportunities, even in a period of rapid economic growth, were not conducive to the solution of the problems of underemployment of the university graduates.

Fitness of Educational System for Industrial Needs

In explaining the mismatch between manpower demand and supply, it is also necessary to look at the relationship between quantitative and qualitative relevance of the level of educational system and the nature of the industrial development which was taking place.

Quantitative Relevance

As discussed in the first section of this chapter, the socio-economic reward structure operating in Korea was the primary factor determining demand for schooling. Most of the employers tended to use the credential as a screening device for job recruitment (See Table LV). In terms of employment requirements by educational levels, those private enterprises which required university graduates were 54.9 percent, and high school graduates were only 24.2 percent of the total advertisements surveyed. The promotion opportunities also highly relied on academic credentials. In the case of Samsung Enterprises, for example, the employed were classified from first to fifth grade. The positions above the 3rd grade were generally filled, with few exceptions, by university graduates, the fourth grade were filled by high school graduates, and the rest of the positions were filled by middle school or primary school graduates. There were nearly no

TABLE LV

EDUCATIONAL REQUIREMENTS FOR EMPLOYMENT

(%)

Classification	Total	Private Enterprise	Government Organizations	Job Training Institutes
No Requirement	18.9	12.4	73.1	26.2
Univ. Graduates	48.4	54.9	20.9	0
High School Grad.	22.6	24.2	3.0	35.7
Others	9.8	8.6	3.0	38.1

Source: The result of advertisements which appeared in Dong-A Daily and Seoul News from January to October, 1976. Reorganized from C. J. Lee (1980: 53).

Note: Classification according to employers.

chances of promotion from fifth to fourth and from fourth to 3rd grades.

The question arises as to why the employers viewed the educational attainment and credentials as indicators of the type of attitudes and values for jobs which the students had acquired? In fact, just like all other nations of Africa, Asia, and Latin America, the employers associated the successful completion of requisite years of education with the needs of particular occupations. Those with greater levels of schooling were more attractive to employers because they were considered likely to fit more smoothly into the organization, not primarily because of any technical ability associated with a given level of education. The employers were not articulate in explaining another preference, i.e. the preference for general over vocational education. There was a hint earlier that general education appeared a sound preparation not only for clerical and administration jobs, but also for the jobs requiring occupational skills. However, these educational requirements were, instead, often irrespective of whether or not they were really necessary for satisfactory job performance.

Under the above conditions, which conformed closely to the realities of the relationship between employment and education, it was likely that there would have been a substantial desire for students to increase their credentials. This was because the anticipated *private* benefit of more schooling would be larger compared to the alternative of little or no schooling as shown in Chapter V. Therefore, over time, as job opportunities for the uneducated diminished, individuals had to safeguard their position by acquiring a complete primary education. This sufficed for a while, but the internal dynamics of employment eventually led to a situation where the job prospects for those with only primary education began to decline. This, in turn, created the demand of a next level of education. As a result of this educational displacement phenomenon, the higher education system was in effect an *absorber of last resort* to an extreme degree of students who wanted higher credentials.

The government and private employers in Korea further tended to strengthen this trend by continuously up-grading formal educational requirements for jobs. Sooner or later, additional educational qualifications became a requisite for jobs and this helped to resist any effort at downward adjustment of educational qualifications. Primary school teaching was one of the more outstanding examples. Until 1961, teachers for elementary schools were trained in three-year normal schools, which were on a par with high schools. In other words, upon completion of middle-school education, prospective elementary school teachers entered normal schools, in which they followed a three-year course in order to qualify as teachers. In March, 1962, however, the existing normal schools were upgraded to two-year junior teacher's college in Korea. Manpower development such as inservice training had not been major concern of the employers, and it was mainly supplied through scouting from the external labor market. The employers continued to reinforce the process of credentialing by using educational qualifications as one of the main criterion for job selection.

The resulting increase in demand for education soon produced an excess of qualified candidates beyond the demands of the job market. As indicated above, the irony was that the more unprofitable a given level of education became as a terminal point, the more demand for it increased, as an intermediate stage or preparation for the next level of education. Eventually, of course, one could conceive of higher unemployment rates among the educated. The basic underlying cause of overall unemployment in Korea, therefore, was the incapacity of the national economy to provide the necessary number of jobs to employ all or at least most of those of working age who had become increasingly more educated. Superimposed on this was the imbalance built into the educational system which allowed and encouraged secondary and higher education to expand at a rate much faster than the requirements of the economy. The graduates became temporarily unemployed for as long as it took them to find a job that would allow for a better match between status and their educational qualifications. In Korea, it should be noted, graduates could take time to obtain more suitable employment because of the support available from the joint family system which acted as a sort of social security system for them.

Except for a small percentage, the graduates did not remain permanently unemployed. Most of them were able to get a job eventually. However, over time, there was an inexorable tendency for the unemployed to raise their educational level. The better educated had to take jobs traditionally requiring lower levels of education after varying periods of unemployment during which their aspirations were scaled downward. The underemployment among college graduates during the 1970s in Korea was such a vivid and visible transformation of unemployment. The unemployment or underemployment in any case was extremely difficult to justify either socially or financially in terms of optional human-resource allocation.

Given the oversupply of higher level graduates, why was the market mechanism not operating to reduce their unemployment and underemployment? It was important to note that political and familial criteria were often applied to screen job-seekers for the labor market process. A labor force survey showed that the percentage of jobs opened to the general public was 49 percent in the management field, 38 percent in the clerical field, and 22 percent in the production field (National Center for Occupational Settlement, Ministry of Labor Affairs, 1984: 42). The majority of applicants got their job through close friends or relations. Thus connections were always considered as being exceedingly important in getting a job except for the very large firms. This type of *inbreeding* was an inexpensive method of job recruiting, and also assured management that the new employees would receive the needed on-the-job training from the worker who had recommended them. Such an informal mechanism of induction and socialization within the job market resulted in depriving competent workers without the right connections of the jobs for which they were qualified.

If there was a long-term tendency towards oversupply, why should it have begun to show itself simultaneously in Korea with a shortage of manpower in the early 1970s?

As pointed out in an earlier chapter, even in the period when unemployment was high, persistent skill shortages were found, particularly among the skilled technicians. The shortage of the skilled workers was partly a structural imbalance problem, since those with an education did not possess the skills and knowledge required for the jobs available. The structural imbalance between demand and supply of labor could occur also under other circumstances, such as when people were not willing to move to the places where jobs were available, or when the jobs available did not provide the expected income or status. In Korea, it had been observed that educated persons insisted on staying in the town areas, waiting for jobs there rather than move to the more outlying districts where they might find employment. Only substantial monetary incentives proved effective in getting them to the rural areas.

In addition, there was a rapid increase in the starting wages of the university graduates because of the shortage of high-level manpower. As pointed out in the earlier chapter, this was mainly because of the fact that the employers favored the graduates from the elite universities. It was not only because they were more productive than others, but because they had more connections with those from the alma maters who were particularly in the government. These personal connections proved valuable for their work, particularly in terms of getting any kind of permission that they might need from the government. As indicated elsewhere, the Korean government played a decisive role in the success and failure of the firms because of the authority it exerted under the bureaucratic authoritarian model of development. Therefore, it was important for the employers to hire the elite university graduates to maintain a good relationship with the bureaucrats of the government.

Qualitative Relevance

In Chapter V, it was pointed out that the qualitative improvement of education in general had not been achieved to keep pace with the quantitative expansion. This section is concerned with examining how flexible the educational system was in preparing workers to meet the industrial needs of the new industries for modern managerial and administrative techniques and to cope with technological changes. To examine this issue, analysis here will be focused on the curriculum changes at each educational level and shifts that were taking place between different fields at the university.

During the period under study, the textbooks for primary and secondary schools were rewritten in 1963 and again in 1973. Although the public policy statements had promised a reorganization of education to promote economic development, none of the reforms had resulted in major improvements in content of the technical subjects such as science and mathematics. This did not necessary mean that there had not been any systematic improvements in those areas, but only that reform of the science and mathematics education had not been the central focus of attention. As the year in which the curriculum was revised showed, the curriculum changes were undertaken to reflect the need for political legitimacy shortly after any politically significant changes, such as the military coup d'état in 1961 and the inauguration of the Yushin (Revitalizing) regime in 1972. Therefore, in the new curriculum, national ethics with strong components of anti-communism, citizenship and moral education was given a very prominent place.

As indicated in Chapter V, examination-oriented education had dominated the whole curriculum of high schools directed at preparing students for the entrance examination of higher education. Except for the small percentage of those students who were admitted to colleges and universities, most of the academic high school students flowed into the job market without proper preparation for a career. Under the circumstances, the high schools tried to organize vocational classes aside from their academic courses, but these attempts were not very successful. Although there was a need for such classes for those students who were not going on to a higher level of education, there was some difficulty in providing them, because it might have been interpreted as an attempt to neglect the students' and parents' favored educational concerns to get their children admitted to higher educational institutes.

However, the kind and quality of school life and learning experiences provided in the vocational high schools were essentially the same as those in academic high schools, though there might have been slight differences. It was widely known that the majority of vocational high schools were actually second-rate academic high schools, not only because they were lacking in facilities, but also because they did not like to be vocational. The situation was very similar to that which P. Foster found in Ghana, that examination-oriented education for higher education had dominated the whole environment of vocational education in high schools in Korea. To be sure, a few of these schools did provide some useful vocational knowledge and skills, but failed to develop the values, attitudes, and desire for these jobs that should be at the heart of productive activities. The problem, therefore, seemed to be not only how many vocational high schools there should be, but also how to enrich the quality of the curriculum of the vocational high schools.

For the last 30 years, there have been several curriculum reforms. However, most of them were at the primary and secondary levels, and not for the colleges and universities. The reformers consisted of educational professionals who were mainly concerned with the low level of education offered in schools, but they refrained from interfering with the curricula of higher education institutions. So, the curriculum at this level was in educational doldrums for a long time and reinforced the *academic reinforcement* in the name of maintaining the academic tradition among the professional departments. In those circumstances, the new disciplines offered by the Korean colleges and universities in preparation for many of the new careers which the evolution of contemporary society required were very limited. Instead, within the faculties, relatively few new courses were offered to meet the needs of the modern professionals.

Based on the above analysis, it was obvious that the rigidities of the curriculum were common features of the educational system in Korea. In other words, the content of education had not changed in a direction that would seem consistent with industrial needs. As a result of the inflexibilities of the educational system responding to economic needs, there began to be shortages of manpower which were identified in the 1970s, particularly among skilled technicians and technologists. Even though there was a quantitative increase in the amount of educated manpower that was available, there was a chronic deficiency in the supply of a trained work force partly because of the rigid system of education.

Another feature contributing to the rigidities of the educational system in Korea could be found in the *transferring system* operating between departments even of the same university. In the case of Seoul Woman's University, for example, transfers were allowed only for those who had got an average grade "B" and over, and on condition that there was mutual agreement between the department chairpersons at the beginning of the second academic year (Seoul Woman's

University, 1979: 29). As the regulation showed, although transfers between the departments was possible theoretically, it was not a simple matter. Further, under the student quota system, the transfers had to be within the limits of the designated number of students of each university department. Further, it was difficult to match the number of transfer students between the popular and non-popular departments because of the hierarchical order of preference.

Under the rigid transfer system, a relatively high number of students were not satisfied with their fields of study compared to those who were satisfied. A survey of 3,330 Seoul National University Students revealed that about 48.9 percent of the students desired to switch to other departments/fields, while the percentage wanting to remain in the same department was 41.5 percent (See Table LVI). In the survey, more than 60 percent of the students enroled in veterinary, agriculture, education, home economics and human science faculties were dissatisfied with their educational choice. They would prefer, if given the option, to enrol in other faculties or fields of study, mostly in the department of business administration (10.3%), economics (9.3%), law (9.0%), physics (8.1%), and English and literature (7.8%), etc.

A question which arises is "Why were the numbers of students dissatisfied with their academic fields of the university so high?" It was partly because they had selected their program of study with little information about the

TABLE LVI

STUDENTS' OPINION ON TRANSFERRING TO OTHER DEPARTMENTS OF SEOUL NATIONAL UNIVERSITY (1979)

(Unit, %)

Academic Fields	Number of Students	Want	Do Not Want	Un-Known	No Response
Human Sciences	185	61.6	33.5	3.2	1.6
Social Sciences	250	41.2	51.6	6.8	0.4
Business Administration	100	31.0	54.0	6.0	9.0
Law	160	28.8	52.5	10.0	8.8
Education	410	72.9	16.6	5.4	5.1
Home Economics	90	67.8	21.1	7.8	3.3
Pharmacy	80	50.0	45.0	5.0	-
Natural Sciences	250	38.0	55.2	5.6	1.2
Medical Sciences	160	27.5	61.3	5.6	5.6
Dentistry	100	37.0	51.0	6.0	6.0
Nursing	79	58.2	26.6	5.1	10.1
Fine Arts	70	14.3	62.9	7.1	15.7
Music	130	23.1	53.1	3.1	20.8
Engineering	795	40.3	51.8	6.4	1.5
Agriculture	402	67.9	19.4	6.5	6.2
Veterinary	49	81.6	12.2	2.0	4.1
Others	20	25.0	65.0	-	10.1
Total	3,330	48.9	41.5	6.0	4.7

Source: Reorganized from Dae-Shik Hong, "The Characteristics of 1979 SNU Freshmen," Research Review Vol. 16, No.1, December, 1979, p. 42.

demands of the economy and the society. Undoubtedly, many university students had very little information about the potential income of the various professions. Further, their academic choices were frequently based upon personal or family preference because of the prestige or social esteem of the university. So, they chose the departments of the university based on their grades mechanically without considering their own vocational aptitude, ability or interest.

The mismatch between educational and occupational fields which was discussed in the earlier chapter was partly the result of the students' high level of dissatisfaction with their academic areas as well as the over-education in the labor market. The more serious mismatch in the humanities and social sciences than that in the natural sciences was largely due to the nature of the occupations. Since the occupations which the humanities and social science students were likely to fill did not, with few exceptions, require high degrees of specialization, it is likely that they could carry out them even in the case where there was a mismatch between their fields of study and the nature of the job. The fact that male graduates' mismatches were higher than that of females was mainly caused by the differences in role which the two sexes were expected to perform. The female graduates who had higher education degrees could either wait until they found the type of occupation which better matched with their education or give up the employment completely. On the contrary, the male graduates who had a family to keep were forced to work even though the job might not have perfectly fitted their education. Once, they were employed,it was difficult for them to switch to other occupations.

Summary

The focus of this chapter was to explain why there was a marked discrepancy between the planned goal/targets and the underlying assumptions of the student enrolment projection in educational plans. The explanation was focused on three areas: (1) the explosive expansion of education in the sacrifice of educational quality, (2) unequal distribution of educational opportunity in spite of the expansion, and (3) the mismatch between manpower demand and supply under a high economic growth rate. This study employed a structural approach to explain the limitations of the educational planning. The focal point of the approach was based on the fact that there was a structural interconnection between the educational system and the wider society.

The significant expansion of education often resulted in a sacrifice of the quality of education offered. Further, the goal/targets relating to student enrolment projection in the educational plans was influenced by the socio-economic structure of education corresponding to the functions of the educational system. The level of educational attainment was not only a symbol of privilege among the people, but also a source of economic rewards in terms of the earning difference it created and the economic rate of return it was able to achieve for students. Under the circumstances, the reward structure relating to the earning of credentials was enhanced because the educational system had adopted "low cost policies" such as the establishment of mammoth schools and multi-shift systems and low levels of salaries for teachers. But since the quantitative expansion of education was not accompanied by qualitative improvement, it resulted in credentialism or "a windbag education."

The failure to realize the underlying assumption of the goal/targets in relation to the students' enrolment, or equal distribution of educational opportunity was explained by class structure of domination coinciding with use of the educational system as a *gate keeper*. The distribution of income in South Korea was relatively more equal than that of most other developing countries, and it should be understood that there was to be remarkable success in increasing the average per capita income of the population during the last two decades of the 1960s and 1970s. Under the model of uneven development based on export-leading industrialization, however, there was clear evidence that the situation of income distribution had been worsened during the study period. It was particularly important to note that there had been an emergence of a new economic upper class or *jaebol* and the enlargement of the industrial working class. Due to the nature of the class structure, the privileged groups used the educational system as an instrument for maintaining their *status quo*. The stratification mechanism of educational opportunity was based on the selection system of examination, private tutoring, high school fees and scholarship aid which generally operated in favor of the economically more advantaged groups in the society.

The last section of this chapter was devoted to explaining why the other underlying assumption of goal/targets of the student enrolment projection was unrealized and why there developed a projection mismatch between manpower demand and supply. As explained in the text, the political economy of manpower demand and supply was responsible at the level of social structure for this problem. As a part of unitary control mechanism of higher education, the authoritarian government of the military regime had changed the student quota system according to political considerations instead of manpower requirements. The dependent pattern of export-oriented development had produced a hierarchical and fragmented division of labor with income opportunities greater for those with higher levels of education. Further, the quantitative and qualitative aspects of the outcomes of the educational system were not appropriate for the country's industrial needs. It was obvious there was an over-supply of total manpower due to structural limitations and a rigid educational system, particularly regarding curriculum changes and the system used by students to transfer to other academic areas.

CHAPTER VII

SUMMARY, CONCLUSION AND IMPLICATIONS

Summary

The purpose of this study was to investigate the widely held belief that education was the *corner-stone* or *prime-mover* in the national development in Korea. For this purpose it was necessary to set a concrete research context to avoid drawing a picture based on opinions rather than on facts relating to Korean education and development issues. The setting for this research was the development of the educational system during the Park regime from 1961 to 1979. This study was intended to evaluate the performance of the educational system in relation to the goal/targets and the underlying assumptions of educational planning.

As a first step, it endeavored to analyze what planners and policy makers wanted to achieve in their educational plans for Korea. This constituted the basis against which an evaluation of the actual performance of the educational system was made. Since educational planning in Korea was part of overall development planning, this study pursued the following logical steps: identification of the overall national goals and development plans; analysis of national development goals and educational planning; and examination of how far the projection of the student enrolment in educational plans were achieved. In analyzing each step, the focal point for this critical review was the goal/targets and their underlying assumptions. The major findings were:

(1) The political leadership identified economic development as the primary objective of national development. The underlying assumption of this national goal was that through the *trickle-down* effect of economic growth, benefits would be transmitted to other sectors of the economy.

(2) Educational planners and policy makers established goal/targets in the educational plans for achieving manpower and ideological development. Two major underlying assumptions were identified as *instrumentalism* for economic development and *functionalism* for socio-political stability.

(3) As a part of educational plans, student enrolment was projected with goal targets aimed at an increase or, in some cases, a decrease at the various levels of education. The projection of student enrolment had two related underlying assumptions which were to equalize the educational opportunity for social development and to meet the manpower requirement for economic development.

From this point, the study proceeded to examine chronologically how the Korean educational system actually performed in relation to the educational plans. As a basis of evaluation, this study selected the goal/targets and the assumptions underlying the student enrolment projected in educational plans. It was not only because the student enrolment was the center of the educational plans, but also goal/targets and the underlying assumptions. The main findings were as follows:

(1) There had been an increase in demand for education which resulted in severe competition for entry into the so-called *elite schools*.

(2) Compared to the goal/targets of the student enrolment projection, the actual outcome was characterized by "over-production" of graduates at various levels of the educational system to the sacrifice of qualitative improvement.

(3) The underlying assumptions of the goal/targets of the student enrolment projection were also unrealized in terms of equalizing educational opportunities and matching manpower demand and supply.

Finally, a central question was raised: "Why were the planning goal/targets and underlying assumptions not realized as the educational planners and policy makers had expected?" In explaining the question, this study employed the structural approach that the function of the educational system is structurally interconnected with the wider society.

(1) The significant expansion of Korean education was accompanied by a sacrifice in the quality of the education provided. This was influenced by the socio-economic reward structure for educated manpower. Under the circumstances, the educational system adopted low cost policies such as mammoth schools and multi-shift system, increase of private schools, and low teachers' salary and moral support.

(2) The failure to realize the underlying assumption of the student enrolment projection, or equal distribution of the educational opportunity was explained by class structure of domination coinciding with the educational system as a *gate keeper*. For the last two decades, income distribution deteriorated under the uneven development

strategy used which was based on export-oriented industrialization. Due to the nature of the class structure, the privileged manipulated the system through the practice of selection by examination, private tutoring, school fees, and the scholarship system.

(3) Another outcome of the goal/targets set for student enrolment projection was the mismatch which developed between manpower demand and supply. The political economy of manpower demand and supply was responsible at the level of social structure. The qualitative outputs of the educational system were not appropriate for industrial needs.

Conclusion

This bring us back to the general questions which were raised at the beginning of this paper, i.e. the relationship between education and development issues in Korea. Based on the major findings summarized above, it was obvious that one could not conclude that the prevalent view of education as a single panacea for the attainment of development objectives was an acceptable one, to say the least. Education in general, and schooling in particular, could not of its own achieve the desired goals without additional structural supports. The findings of this study clearly show that considerable impact on these presumed outcomes of education was strongly influenced by the structural features of the society itself. Indeed, the main concern throughout this research was that there seemed to be a direct correspondence between the educational system and the social structure.

School could hardly be the single determining factor in the attainment of all educational, much less national, development goals.

How then could one construe the many statements by political leaders, by educational thinkers and planners, and by social scientists in Korea in general, that education was the *prime most important factor* of development? To regard it as such was to take an overestimated view of education and its effect on society. No doubt, some of these statements were made for rhetorical, exhortative purposes, sometimes even to bamboozle the common people, particularly when made by politicians, and they should not be taken seriously.

The development which was visualized and hoped for was written in the prevailing framework of a *tradition-modernity* paradigm, with a stress on the cultural, rather than structural change. But it was soon discovered that education, by and large, works to maintain the existing system of social stratification and continuance of ideas and values of the dominant classes and their economic, social, and political interests. These were all contributing to a fundamental reassessment of the role of education in the development process. Increasingly, the educational system was regarded less as an *engine of development* and more as institutions which reflected the nature of the existing social structure and the system of stratification. In Korea, like many other developing countries, the aggregate private demand for education, which exerted powerful pressure on supply, did not reflect the real development needs of the nation. The private demand was determined by economic incentives, and social and political constraints.

Implications

A study of this kind has implications for scholars as well as for policy makers and politicians. By way of conclusion, this section attempted to draw some inferences as to what implications our findings had for further study of the role that education plays in national development from the perspectives of both the scholar and the statesman.

It was clear, from the major findings stated above, that unless there were structural changes in society to alleviate the source of the distortions, the attempt to redress or resolve the tensions between education and the labor market were likely to prove futile. As M. K. Bacchus pointed out, attempting to make a radical change in educational systems without effecting corresponding changes in their social and economic structures was like "hitting one's head against a brick wall" (1981: 220). Therefore, it would be argued that the socio-economic structure and its executive arm, the political system, had primary importance in the educational transformation for development in Korea.

(1) The starting point for reform was to change the whole structure of incentives influencing

the desirability for the different types of occupation. Particularly, the policies which tended to remedy major economic imbalances (e.g., those between rural and urban areas) to correct distortions in income and wage differentials would have multiple beneficial effects if corresponding attention was paid to the reward structures.

(2) Any major economic social and educational planning and reform in Korea needed to be guided by a new development ideology aimed at improving the general living conditions of the masses. This new development strategy should have had its concern not only with human resource *development* but also human resource *utilization*.

(3) The Korean situation offered a typical example of what had happened in manpower demand and supply even though policy makers tightly controlled the educational system through the student-quota system. In recognition of the substitutability of the manpower, it was necessary to develop a more flexible accommodating system in trying to set student quotas.

However, this was not to deny the innovative role of education in development. Education, no doubt, could help the process of development as a necessary and vitally important collateral factor. It could help to stimulate, and work out that process in the manner described above, by disseminating and cultivating knowledge, information, skill and values appropriate to the changing socio-economic and political structure. Moreover, in a rapidly changing situation--e.g., in a post-revolutionary period--when fundamental changes were rapidly taking place, education could undoubtedly operate as a powerful weapon to help support and consolidate changes (e.g., the USSR after the October Revolution and recently Cuba and Vietnam). From this point of view, it is necessary to modify the following aspects of the Korean educational system.

(1) The low-cost approach to the expansion of schooling should be changed to improve the quality of education. The highest priority should be given to improving school conditions in terms of student/teacher ratio, class size and unit cost per student.

(2) As a selection system for students of higher education, work-sharing arrangements should be encouraged. As R. Dore suggests, depending on the interest and previous performance of the students, some would enter into programs in which the education/training component of the job is most marked, while for others, the work component would figure more prominently.

(3) It is proposed that enrolment into higher education in the different regions be made approximately according to a quota system. A type of study-loan for all, without any selection process is proposed so that everyone who secures admission has a chance of receiving higher education of some sort in different types of educational institutions.

Above all, however, it should be particularly noted that it would not be easy to change the existing school system radically. The elite groups would be unwilling to modify the school system drastically because it has helped them to reach power. The ordinary citizens aspiring for elite status would not be very eager to see changes because they have viewed the school system as an avenue for upward social mobility. Even where there has been an attempt at a radical change by breaking from the familiar pattern of educational system in China , Tanzania and Cuba, as indicated above, there has eventually been a reversal to the traditional pattern of schooling. It was also significant that in all the countries mentioned above, there had also been attempts at a radical restructuring of the society.

In this regard, it should be noted that the relationship between education and development is highly complex. Although much has been said about this relationship, there is still much we do not know. It remains a challenge for continued research to further document these connections and contribute to the adoption of more enlightened education and development plans. For this work, this study was a first step in a long and important journey.

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APPENDICES

APPENDIX TABLE I

CLASSIFICATION OF EDUCATIONAL COST

Classification		Direct Cost	Indirect Cost
Public educational cost	Public-borne educational expenditures	Expenditures paid by central and local government and school foundation	Opportunity cost
	Private-borne educational expenditures	Registration fee, tuition, PTA, Student Defense Corps Fee	
Private educational cost	Private-borne educational expenditures	Expenses for textbooks, instructional materials and others	

APPENDIX TABLE II

NUMBER OF STUDENTS PER TEACHER IN SEOUL, 1961-79

Type of School	1961	1966	1971	1977	1979
Elementary School	76	76	73	72	68
Middle School	52	44	41	44	45
High School					
Academic	30*	32	31	33	33
Vocational	28*	31	29	32	32

Source: Seoul Education Research Institute, Statistical Yearbook of Education (Seoul: The Board of Education, City of Seoul, 1961-79).

Note: * 1963 statistics

APPENDIX TABLE III

NUMBER OF STUDENTS PER CLASS IN SEOUL, 1961-79

(unit, %)

Type of School	1961	1966	1971	1977	1979
Elementary School	83	81	79	76	71
Middle School	76	76	73	72	68
High School	63	63	68	69	70
Academic	62*	60	61	60	60
Vocational	69*	55	58	60	60

Source: Seoul Education Research Institute, Statistical Yearbook of Education (Seoul: The Board of Education, City of Seoul, 1961-79).

Note: * 1963 statistics

APPENDIX TABLE IV

PUBLIC SHARE OF EDUCATIONAL EXPENSES COMPARED TO THE GNP OF SELECTED COUNTRIES, 1970-79

(Unit, %)

Country	1970	1975	1979
Algeria	7.4	7.2	7.8
Egypt	4.8	5.6	4.0
U.S.A.	6.5	6.5	7.0
Canada	8.9	7.8	7.6
Nigeria	-	4.2	3.9
Israel	5.5	6.9	8.6
Japan	3.9	5.5	5.8
Korea	3.6	2.2	3.4
Syria	3.8	3.9	4.9
Thailand	3.5	3.6	3.2
Singapore	3.1	2.9	2.7
Malaysia	4.4	6.3	5.7
Saudi Arabia	4.8	10.3	6.4

Source: UNESCO, Statistical Yearbook, 1984.

APPENDIX TABLE V

PERCENTAGE OF DISTRIBUTION OF PUBLIC EDUCATION EXPENDITURE BY FUNCTION, 1967-79

(unit, %)

Type of School	1967	1971	1976	1979
Elementary School				
Personal	60.5	60.1	78.0	76.6
Operational	16.2	16.6	16.5	11.7
Facilities	23.3	23.3	5.5	11.7
Middle School				
Personal	45.9	58.1	71.2	75.0
Operational	27.0	22.4	20.0	15.8
Facilities	27.1	19.5	8.8	9.2
High School				
Personal	57.9	63.6	63.5	67.2
Operational	28.4	24.7	27.8	19.8
Facilities	13.7	11.7	8.7	13.0
College & University				
Personal	39.0	38.7	50.0	34.1
Operational	36.5	31.4	32.6	33.9
Facilities	24.5	29.9	17.4	32.0

Source: Korean Educational Development Institute, Educational Indicators in Korea (Seoul: KEDI, 1986), pp. 100-101.

APPENDIX TABLE VI

PROPORTION OF THE FIRST-YEAR FEMALE STUDENTS REGISTERED IN SEOUL NATIONAL UNIVERSITY BY ACADEMIC AREAS, 1962-71

(Unit, %)

Academic Areas	1962 Enrolment	Ratio	1966 Enrolment	Ratio	1971 Enrolment	Ratio
Engineering	312	0.3	535	0.3	798	0.4
Agriculture	258	7.8	274	8.0	334	6.9
Liberal Arts and Science	625	8.2	561	10.1	739	5.3
Fine Arts	70	68.6	70	62.9	70	72.9
Law	160	0.0	160	0.6	160	1.3
Education	140	26.4	258	25.2	402	15.4
Commerce	189	1.6	189	0.0	195	0.0
Pharmacy	80	20.0	80	16.3	80	13.8
Music	87	67.8	120	63.3	120	70.8
Nursing	39	100.0	40	100.0	80	100.0
Total	1960	14.0	2287	13.9	2978	14.5

Source: Seoul National University, Annual Survey of S.N.U. (Seoul: Seoul National University, 1961-79).

APPENDIX TABLE VII

OCCUPATIONAL STRUCTURE OF ECONOMICALLY ACTIVE POPULATION BY AGE IN 1970 AND 1980

(unit, %)

Occupation	1970					1980				
	14-24	25-34	35-44	Over 45	Total	14-24	25-34	35-44	Over 45	Total
Prof. Tech. & Relt'd Workers	2.30	4.64	3.86	1.95	3.18	3.27	6.69	5.01	3.34	4.58
Admin. & Manag. Workers	0.06	0.83	1.44	1.49	0.94	0.02	0.76	1.80	1.57	1.05
Clerical Workers	5.17	8.83	6.86	2.59	5.85	14.21	12.60	7.84	3.96	9.49
Sales Workers	5.82	11.41	12.85	10.62	10.13	6.52	14.31	15.57	11.67	12.07
Service Workers	12.63	5.85	4.84	3.45	6.69	7.51	7.39	8.07	5.48	7.05
Farming & Other Primary Workers	42.70	42.53	50.30	67.26	50.75	24.85	24.27	36.94	61.54	37.60
Prod. & Trans. Laborer & Other	30.81	24.53	18.80	12.44	21.66	43.62	33.97	24.77	12.44	28.15
Not Classifiable	0.52	1.38	1.05	0.21	0.79	-	0.02	-	-	0.00
Total	100.01	100.00	100.00	100.01	99.99	100.00	100.01	100.00	100.00	99.99
N	2,530,962	2,688,128	2,293,169	2,632,179	10,144,738	2,947,440	3,275,341	2,982,814	3,476,409	12,682,004

Source: Population and Housing Census Report, 1970 and 1980.

Note: - denotes that figures are negligible.

APPENDIX TABLE VIII

OCCUPATIONAL STRUCTURE OF THE MALE POPULATION BY AGE IN 1970 AND 1980

(unit, %)

	1970					1980				
Occupation	14-24	25-34	35-44	Over 45	Total	14-24	25-34	35-44	Over 45	Total
Prof. Tech. & Relt'd Workers	1.79	5.12	5.21	2.61	3.79	2.32	6.41	6.22	4.72	5.21
Admin. & Manag. Workers	0.06	1.08	2.10	2.21	1.41	0.03	0.99	2.60	2.48	1.64
Clerical Workers	3.75	11.38	10.06	3.82	7.50	6.62	14.47	11.02	6.05	9.98
Sales Workers	7.28	11.41	11.74	10.58	10.41	7.55	13.35	14.77	11.89	12.33
Service Workers	6.56	4.86	4.13	2.68	4.46	5.23	5.51	6.37	4.55	5.42
Farming & Other Primary Workers	48.09	33.98	40.99	61.68	45.85	32.99	18.06	27.49	53.37	32.53
Prod. & Trans. Laborer & Other	31.69	30.32	24.20	16.18	25.44	45.25	41.19	31.52	16.94	32.88
Not Classifiable	0.78	1.85	1.55	0.24	1.13	-	0.02	-	-	0.01
Total	100.00	100.00	99.98	100.00	99.99	99.99	100.00	99.99	100.00	100.00
N	1,354,594	1,949,242	1,526,587	1,741,078	6,571,501	1,370,010	2,465,059	2,033,205	2,175,707	8,043,981

Source: Population and Housing Census Report, 1970 and 1980.

Note: - denotes that figures are negligible.

APPENDIX TABLE IX

OCCUPATIONAL STRUCTURE OF THE FEMALE POPULATION BY AGE IN 1970 AND 1980

(unit, %)

Occupation	1970					1980				
	14-24	25-34	35-44	Over 45	Total	14-24	25-34	35-44	Over 45	Total
Prof. Tech. & Relt'd Workers	2.88	3.39	1.16	0.06	2.06	4.10	7.51	2.40	1.01	3.48
Admin. & Manag. Workers	0.05	0.15	0.12	0.09	0.09	0.00	0.05	0.07	0.06	0.04
Clerical Workers	6.80	2.11	0.47	0.17	2.82	20.81	6.92	1.04	0.46	8.63
Sales Workers	4.13	11.42	15.05	10.70	9.62	5.63	17.21	17.29	11.30	11.63
Service Workers	19.62	8.46	6.26	4.95	10.79	9.48	13.13	11.70	7.03	9.89
Farming & Other Primary Workers	36.50	65.09	68.83	78.16	59.74	17.19	43.16	57.17	75.21	46.39
Prod. & Trans. Laborer & Other	29.80	9.25	8.04	5.13	14.73	42.20	12.02	10.31	4.92	19.94
Not Classifiable	0.23	0.14	0.06	0.14	0.15	-	0.01	-	-	0.00
Total	100.01	100.01	99.99	100.00	100.00	100.01	100.01	99.98	99.99	100.00
N	1,176,368	739,186	766,582	891,101	3,573,237	1,577,430	810,282	949,609	1,300,702	4,638,023

Source: Population and Housing Census Report, 1970 and 1980.

Note: - denotes that figures are negligible.

APPENDIX TABLE X

EARNING DIFFERENCE BY OCCUPATIONAL STATUS OF TEN OR MORE EMPLOYEES' PLACES OF WORK

Occupation	Average Monthly Income	% of Total Average Income	% of Employee
Professional, Technical & Related Workers	40,362	179.9	6.5
Administrative & Managerial Workers	60,792	270.9	0.9
Clerical Workers	34,017	151.6	18.8
Sales Workers	20,242	90.2	0.7
Service Workers	15,523	69.2	5.2
Farming & Other Primary Workers	15,445	68.9	0.5
Production, Transportation, Laborer & Other Workers	17,516	78.1	67.2
Total	22,441	100.0	100.0

Source: Ministry of Labor Affairs, _Income Survey Report_ (Seoul: Ministry of Labor Affairs, Republic of Korea, 1971).

APPENDIX TABLE XI

MULTI-SHIFT SYSTEM OF ELEMENTARY SCHOOL IN SEOUL, 1963-79

Schools	1963	1966	1971	1977	1979
Total	140	177	208	259	278
Over-Two Shift	-	48	129	102	199
Ratio (%)	-	27.1	62.0	39.4	71.6
Classes					
Total	5,245	6,968	9,500	11,418	15,013
Over-Two Shift	2,938	2,527	1,595	642	2,901
Ratio (%)	56.0	36.3	16.8	5.6	19.3

Source: _Statistical Yearbook of Education_, 1963-1979.

Note: - denotes that data were not available.

APPENDIX TABLE XII

THE RATIOS OF THE EDUCAITONAL EXPENSES

(Unit, %; Million Won in Current Price)

Year	MOE Budget (A)	Schooling Expenses (B)	Expenses for Compulsory Education (C)	B/A	C/A	C/B
1960	6,381	6,237	5,163	97.7	80.9	82.8
1965	15,331	14,822	11,134	96.7	72.6	75.1
1970	78,476	75,689	60,089	96.4	76.6	79.4
1975	227,926	220,011	153,449	96.5	67.3	69.7
1979	884,924	806,565	480,056	91.1	54.2	59.5

Source: Korean Educational Development Institute, *Educational Indicators in Korea* (Seoul: KEDI, 1986), p. 95.

Note: Schooling Expense = MOE budget - (Expense for MOE itself, and Academic and Artistic research institutes).